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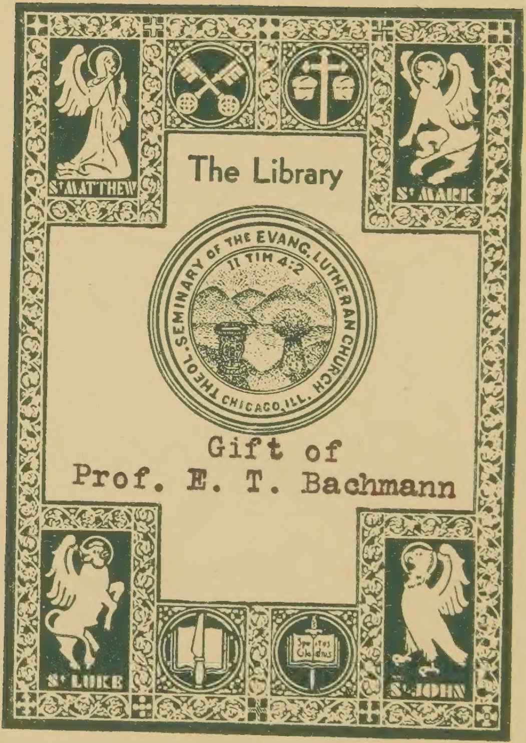

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A HISTORY
OF
ARABICO-GOTHIC CULTURE

VOLUME IV

PHYSIOLOGUS
STUDIES

By LEO WIENER

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SOURCES QUOTED

Ad-Damīrī.	Ḥayāt al-ḥayawān (A Zoological Lexicon), translated from the Arabic by Lt.-Colonel A. S. G. Jayakar, vols. I and II^1, London, Bombay 1906–1908.
Aelian.	
Aeneas Sylvius.	Opera quae extant omnia, Basileae 1571.
Aethicus.	Éthicus et les ouvrages cosmographiques intitulés de ce nom, ed. M. D'Avezac, Paris 1852. Die Kosmographie des Istrier Aithikos, ed. H. Wuttke, Leipzig 1853.
Ahlquist, A.	Wogulisches Wörterverzeichnis, Helsingissä 1891.
Ahrens, K.	Das Buch der Naturgegenstände, Kiel 1892.
Albertus Magnus.	
Alcuin.	See Migne, P. L., vol. C.
Ambrose.	See CSEL., vol. XXXII^2.
Amélineau, E.	Histoire des monastères de la Basse-Égypte, Paris 1894, in Annales du Musée Guimet, vol. XXV.
Ammianus Marcellinus.	
Amyot, J. M.	Dictionnaire tartare-mantchou françois, vol. II, Paris 1789.
Annius, J.	Antiquitatum variarum volumina XVII, 1512.
Ansileubus.	See Mai.
Anthologia Palatina.	
Antigonus of Carystia.	Historiarum mirabilium collectanea, ed. J. Beckmann, Lipsiae 1791.
Apicius, Caelius.	De re coquinaria libri decem, ed. C. T. Schuch Heidelbergae 1874.
Apollonius Rhodius.	
Archivio glottologico italiano, vol. II.	
Aristophanes.	
Aristotle.	De animalibus historia, ed. L. Dittmeyer, Lipsiae 1907. The Works of Aristotle, trans. and ed. J. A. Smith and W. D. Ross, vol. IV, Oxford 1910. Opera, ed. I. Bekker, vol. II, Berolini 1831.
Arnoldus Saxo.	See Stange.
Arrian.	History of Alexander's Expedition, trans. by Rooke, vol. II, London 1729.
Ashburner, W.	The Rhodian Sea-Law, Oxford 1909.
Athenaeus.	The Deipnosophists or Banquet of the Learned of Athenaeus, trans. by C. D. Yonge, vols. I and II, London 1854.
Atti della Società Ligure de Storia patria, vol. XXXVI, Roma 1906.	
Augustine.	See Migne, P. L., vols. XXXIV and XXXV. See CSEL., vols. XXV, XXVIII, XXIX, XL^2.

Balari y Jovany, J.	Orígenes históricos de Cataluña, Barcelona 1899.
Balch, E. G.	Our Slavic Fellow Citizens, New York 1910.
Basil.	See Migne, P. G., vol. XXX.
Basset, R.	Étude sur la Zenatia de l'Ouarsenis et du Maghreb Central, Paris 1895.
	Étude sur la Zenatia de Mzab, de Ouargla et de l'Oued-Rir', Paris 1892.
	Les noms des métaux et des couleurs en berbère, Paris 1895.
Beck, L.	Die Geschichte des Eisens, vol. I, Braunschweig 1884.
Beckh, H.	Geoponica, Lipsiae 1895.
Bede.	See Migne, P. L., vols. XCI and XCII.
Beer, R.	Isidori Etymologiae, Codex Toletanus (nunc Matritensis), 15, 8, Lugduni Batavorum 1909.
Behrend, R.	Lex salica, Weimar 1897.
Bekker, I.	Anecdota graeca, vol. I, Berolini 1814.
Berthelot, M.	Collection des anciens alchimistes grecs, vol. I, Paris 1887.
	La chimie au moyen âge, vol. I, Paris 1893.
Beugnot, A. A.	Assises de Jérusalem, vol. II, Paris 1843.
Blancard, L.	Documents inédits sur le commerce de Marseille au moyen-âge, vol. I, Marseille 1884.
Bloomfield, M.	Hymns of the Atharva-veda, Oxford 1897, in The Sacred Books of the East, vol. XLII.
Blümner, H.	Der Maximaltarif des Diocletian, Berlin 1893.
Bochart, S.	Hierozoicon, sive bipertitum opus de animalibus s. Scripturae, revised by D. Clodius, vols. I and II, Francofurti ad Moenum 1675.
Böckh, A.	Die Staatshaushaltung der Athener, ed. M. Fränkel, vol. II, Berlin 1886.
Bonaini, F.	Statuti inediti della città di Pisa dal XII al XIV secolo, vols. I and III, Firenze 1854–1857.
Bradley, H.	Remarks on the Corpus Glossary, in the Classical Quarterly, April, 1919.
Bretschneider, E.	On the Knowledge Possessed by the Ancient Chinese of the Arabs and Arabian Colonies, and other Western Countries Mentioned in Chinese Books, London 1871.
Bridel, D.	Glossaire du patois de la suisse romande, Lausanne 1866.
Brisson, B.	Opera minora varii argumenti, Lugduni Batavorum 1749.
Brugsch, H.	Hieroglyphisch-Demotisches Wörterbuch, vol. VII, Leipzig 1882.
Budge, E. A. W.	Osiris and the Egyptian Resurrection, vol. II, London 1911.
	Syrian Anatomy, Pathology and Therapeutics, or "The Book of Medicines," vol. II, London, etc., 1913.
Bürner, G.	Oppian und sein Lehrgedicht vom Fischfang, Bamberg 1912.
Burnam, J. M.	Commentaire anonyme sur Prudence, Paris 1910.
Butler, C.	See Palladius.

Caesar.	
Cahier, C. and Martin, A.	Mélanges d'archéologie, d'histoire et de littérature, vols. II and IV, Paris 1851–1856.
Calendar of State Papers and Manuscripts, Relating to English Affairs, Existing in the Archives and Collections of Venice, vol. I, London 1864.	
Camera, M.	Memorie storico-diplomatiche dell' antica città e ducato di Amalfi, vol. I, Salerno 1876.
Candolle, A. de	Origine des plantes cultivées, Paris 1883.
Capmany y de Montpalau, A. de	Memorias historicas sobre la marina, comercio y artes de la antigua ciudad de Barcelona, Madrid 1779.
Carra de Vaux, B.	L'Abrégé des Merveilles, Paris 1898, in Actes de la Société philologique, vol. XXVI.
Cartulaire de Saint-Jean d'Angély, in Archives historiques de la Saintonge et de l'Aunis, vols. XXX and XXXIII.	
Cassiodorus.	See MGH., Auct. ant., vol. XII.
Cerda, J. L. de la	P. Virgilii Maronis Bucolica et Georgica, Coloniae Agrippinae 1647.
Chatelain, E.	Les palimpsestes latins, in Annuaire 1904, École pratique des Hautes Études.
Clarke, W. K. L.	See Palladius.
Claudianus.	
Clemens Alexandrinus.	See Migne, P. G., vol. VIII.
Clément-Mullet.	Essai sur la minéralogie arabe, in Journal asiatique, sixième série, vol. XI.
Codex Florentinus.	Digestorum seu Pandectarum Codex Florentinus olim Pisanus phototypice expressus, Roma 1902.
Codices e vaticanis selecti, phototypice expressi iussu Leonis PP. XIII, vol. II, Romae 1902.	
Codinus.	Corpus scriptorum historiae Byzantinae, vol. XXXVI.
Coleccion de documentos inéditos del archivo general de la corona de Aragon, vol. VIII, Barcelona 1851.	
Coleccion de documentos para el estudio de la historia de Aragon, vol. I, Zaragoza 1904.	
Conington and Nettleship.	See Vergil.
Constantinus Porphyrogenitus.	Corpus scriptorum historiae Byzantinae, vol. VIII.
Cook A. S.	The Old English Elene, Phoenix, and Physiologus, New Haven, London 1919.
Corpus inscriptionum latinarum, vols. II and XIII.	
Cortes de los antiguos reinos de Aragón y de Valencia y Principado de Cataluña, vol. I, Madrid 1896.	
Cruel, R.	Die Sprachen und Völker Europas vor der arischen Einwanderung, Detmold 1883.
Crum, W. E.	Catalogue of the Coptic Manuscripts in the Collection of the John Rylands Library, Manchester, London 1909.
CSEL.	Corpus scriptorum ecclesiasticorum latinorum, vols. XXII, XXV, XXVIII, XXIX, XXXII^2, XXXV, XL^2.

Cunningham, W.	The Growth of English Industry and Commerce during the Early and Middle Ages, vol. I, Cambridge 1905.
Cyprian.	See Migne, P. L., vol. IV.
Cyril.	See Migne, P. G., vol. LXIX.

Davidsohn, R.	Forschungen zur Geschichte von Florenz, III. Theil, Berlin 1901.
	Garbowolle und Garbotuche, in Historische Vierteljahrschrift, vol. VII.
	Geschichte von Florenz, vol. I, Berlin 1896.
Delisle, L.	Le cabinet des manuscrits de la Bibliothèque nationale, vol. IV, Paris 1881.
Delpit, J.	Collection générale des documents français qui se trouvent en Angleterre, vol. I, Paris 1847.
Diodorus Siculus.	
Dionysius of Halicarnassus.	
Dioscorides.	De materia medica libri quinque, ed. M. Wellmann, 3 vols., Berolini 1907–1914.
Dittmeyer.	See Aristotle.
Doren, A.	Die Florentiner Wollentuchindustrie vom vierzehnten bis zum sechzehnten Jahrhundert, in Studien aus der Florentiner Wirtschaftsgeschichte, vol. I, Stuttgart 1901.
Douais, C.	Cartulaire de l'Abbaye de Saint-Sernin de Toulouse, Paris, Toulouse 1887.
Doutté, E.	Magie et religion dans l'Afrique du Nord, Alger 1909.
Dozy, R.	Dictionnaire détaillé des noms des vêtements chez les Arabes, Amsterdam 1845.
	Supplément aux dictionnaires arabes, Leyde 1881.
Dozy, R. and Engelmann, W. H.	Glossaire des mots espagnols et portugais dérivés de l'arabe, Leyde, Paris 1869.
Ducange.	Glossarium mediae et infimae latinitatis, ed. Léopold Favre, Niort 1883–1887.
Działowski, G. von	Isidor und Ildefons als Litterarhistoriker, Münster i. W. 1898.

Ebers, G.	Papyros Ebers, vol. II, Leipzig 1875.
Ebert, A.	Allgemeine Geschichte der Literatur des Mittelalters in Abendlande, vol. I, Leipzig 1889.
Ephraem Syrus.	Opera omnia quae exstant, Graece et latine, vol. II, Romae 1743, Syriace et latine, vols. I and II, Romae 1737–1740.
	Select Works of S. Ephrem the Syrian, ed. and trans. by J. B. Morris, Oxford 1847.
Epiphanius.	See Migne, P. G., vols. XLII and XLIII.
	See CSEL., vol. XXXV.
Erman, A.	Das Metall ḥsmn, in Zeitschrift für ägyptische Sprache und Alterthumskunde, vol. XXX.
Eucherius.	See Migne, P. L., vol. L.
	See CSEL., vol. XXXI.

Eustathius of Antioch.	See Migne, P. G., vol. XVIII.
Eustathius.	Commentarii ad Homeri Iliadem, vol. I, Lipsiae 1827.
Facsimiles of Parisinus Latin 11530, Harvard Library.	
Fick, A.	Vergleichendes Wörterbuch der Indogermanischen Sprachen, vol. III.
Flodoardus.	Historia Remensis ecclesiae, vol. I, Reims 1854.
Florio, J.	Queen Anna's New World of Words, London 1611.
Fraehn, Ch. M.	Beleuchtung der merkwürdigen Notiz eines Arabers aus dem XI. Jahrhundert über die Stadt Maynz, in Mémoires de l'académie impériale des sciences de Saint-Pétersbourg, VI. série, Sciences politiques, histoire et philologie, vol. II.
Fraenkel, S.	Die aramäischen Fremdwörter im Arabischen, Leiden 1886.
Francisque-Michel.	Recherches sur le commerce, la fabrication et l'usage des étoffes de soie, d'or et d'argent, et autres tissus précieux, vol. II, Paris 1854.
Franke, O.	Beziehungen der Inder zum Westen, in Zeitschrift der deutschen morgenländischen Gesellschaft, vol. XLVII.
Frati, L.	Statuti di Bologna dall' anno 1245 all' anno 1267, vols. I and III, Bologna 1869–1877.
Fredegar.	See MGH., Scrip. rer. merov., vol. II.
Friedlaender, L.	Die Chadhirlegende und der Alexanderroman, Leipzig, Berlin 1913.
Galenus, Claudius.	Opera omnia, in Medicorum graecorum opera quae exstant, vol. XI, Lipsiae 1826.
Garnier, J.	Chartes de communes et d'affranchissements en Bourgogne, vol. II, Dijon 1868.
Gaudenzi, A.	Statuti delle società del popolo di Bologna, vol. II, Roma 1896.
Gennadius.	Liber de viris inlustribus, ed. E. C. Richardson, in Texte und Untersuchungen zur Geschichte der altchristlichen Literatur, vol. XIV, Leipzig 1896.
Géraud, H.	Paris sous Philippe-le-Bel, Paris 1837.
Germain, A.	Histoire du commerce de Montpellier, vol. I, Montpellier 1861.
	Liber instrumentorum memorialium, Montpellier 1884–1886.
Gesner, C.	Historiae animalium Lib. I. de quadrupedibus uiuiparis, vol. I, Tiguri 1551.
Gilliodts-van Severen, L.	Cartulaire de l'ancienne estaple de Bruges, vol. I, Bruges 1904.
Giry, A.	Histoire de la ville de Saint-Omer et de ses institutions jusqu' au XIV^e siècle, Paris 1877.
	Les établissements de Rouen, vol. II, Paris 1885.
Gladisch, A.	Die Hyperboreer und die alten Schinesen, Leipzig 1866.
Goetz.	Corpus glossariorum latinorum.
Goldstaub, M. and Wendriner, R.	Ein Tosco-Venezianischer Bestiarius, Halle a. S. 1892.

Golstunski, K. Th.	Mongol'sko-russki slovar', vol. III, S. Peterburg 1893.
Gradenwitz, O.	Interpolationen in den Pandekten, Berlin 1887.
Grágás, vol. I, Copenhagen 1852.	
Greek Anthology, The, with an English translation by W. R. Paton, vol. III, London, New York 1917.	
Gregory.	See Migne, P. L., vol. LXXVI.
Gregory of Tours.	See MGH., Scrip. rer. merov., vol. I.
Grenfell, B. P., Hunt, A. S., Smyly, J. G.	The Tebtunis Papyri, Part I, London 1902.
Grial, J.	Divi Isidori Hispalensis Episcopi Opera, Madriti 1599.
Griffith, F. Ll.	Catalogue of the Demotic Papyri in the John Rylands Library, vol. II, Manchester 1909.
Gross, C.	The Gild Merchant, vol. I, Oxford 1890.
Guigues, P.	Les noms arabes dans Sérapion, "Liber de simplici medicina," Paris 1905.
Guilhiermoz, P.	Note sur les poids du moyen âge, in Bibliothèque de l'école des chartes, vol. LXVII.
Hahn, J. G. von	Albanesische Studien, vol. III, Jena 1854.
Harvard Oriental Series,	vol. IV, Cambridge 1901.
Hattemer, H.	Denkmahle des Mittelalters; St. Gallen's altteutsche Sprachschaetze, vol. I, St. Gallen 1844–1849.
Heider, G.	Physiologus, Wien 1851.
Heimbach, C. G.	Basilicorum libri LX, vol. I, Lipsiae 1833.
Hepke.	Die kulturgeschichtlichen Beziehungen der alten Chinesen und der Hellenen, in Verhandlungen der Gesellschaft für Erdkunde zu Berlin, vol. VI.
Herodianus.	
Herodotus.	Musae, ed. F. Creuzer and J. C. F. Baehr, 4 vols., Lipsiae 1856–1861.
Hessels, J. H.	An Eighth-Century Latin-Anglo-Saxon Glossary, Cambridge 1890. A Late Eighth-Century Latin-Anglo-Saxon Glossary, Cambridge 1906.
Hesychius.	
Hilary.	See Migne, P. L., vol. X. See CSEL., vol. XXII.
Hilliger, B.	Studien zu mittelalterlichen Massen und Gewichten, in Historische Vierteljahrschrift, vol. III.
Höhlbaum, K.	Hansisches Urkundenbuch, vols. I and III, Halle 1876–1886.
Hoffmann, M.	Der Codex Mediceus, Pl. XXXIX, N. 1, des Vergilius, Berlin 1889.
Hofman, F.	Die Compilation der Digesten Justinians, Wien 1900.
Holder, A.	Alt-celtischer Sprachschatz, Leipzig 1891–.
Hommel, F.	Die aethiopische Uebersetzung des Physiologus, Leipzig 1877. Die Namen der Säugethiere bei den südsemitischen Völkern, Leipzig 1879.

Horapollo.	Hieroglyphica, ed. C. Leemans, Amstelodami 1835.
HPM.	Historiae patriae monumenta. Vols. II and XVI, Leges municipales, Augustae Taurinorum 1838, 1876. Vol. VI, Chartae, 1853. Vol. VII, Liber iurium reipublicae genuensis, 1854. Vol. XVII, Codex diplomaticus ecclesiensis, 1877.
Idrīsī.	Géographie d'Édrisi, ed. P. A. Jaubert, vol. I, in Recueil de voyages et de mémoires, publié par la Société de Géographie, vol. V, Paris 1836.
Ildefonsus.	See Migne, P. L., vol. XCVI.
Isidore.	Etymologiarum sive originum libri XX, ed. W. M. Lindsay, 2 vols., Oxonii 1911. See Migne, P. L., vol. LXXXII.
Jacob, G.	Welche Handelsartikel bezogen die Araber des Mittelalters aus den nordisch-baltischen Ländern?, Berlin 1891.
Jacob, K. G.	Neue Beiträge zum Studium des kaspisch-baltischen Handels im Mittelalter, in Zeitschrift der deutschen morgenländischen Gesellschaft, vol. XLIII.
Jal, A.	Glossaire nautique, Paris 1848.
Jaubert, H. F.	Glossaire du Centre de la France, Paris 1864.
Jerome.	See Migne, P. L., vols. XXII, XXIII, XXIV, XXV, XXVI, XXVII.
Jones, J.	Oppian's Halieuticks of the Nature of Fishes and Fishing of the Ancients, Part II, Oxford 1722.
Jordan, H. and Eyssenhardt, F.	Scriptores historiae Augustae, vols. I and II, Berolini 1864.
Jordanes.	See MGH., Auct. ant., vol. V.
Josephus.	
Julian.	Iuliani Imperatoris quae supersunt . . omnia, ed. F. C. Hertlein, vol. I, Lipsiae 1875.
Juvenal.	
Juynboll, Th. W.	Handbuch des Islamischen Gesetzes, Leiden, Leipzig 1910.
Kalima, J.	Die russischen Lehnwörter im Syrjänischen, Helsingfors 1911.
Karnyeev, A.	Materialy i zamyetki po literaturnoy istorii Fiziologa, 1890.
Katanov, N. F.	Opyt izslyedovaniya uryankhayskago yazyka, Kazan' 1903.
Keutgen, F.	Der Grosshandel im Mittelalter, in Hansische Geschichtsblätter, Jahrgang 1901, Leipzig 1902.
Kilian, C.	Etymologicum teutonicae linguae, Traiecti Batavorum 1777.
King, L. W.	Babylonian Magic and Sorcery, London 1896.
Kingdon, J. A.	Facsimile of First Volume of MS. Archives of the Worshipful Company of Grocers of the City of London, Part I, [London] 1886.

Kluge, F.	An Etymological Dictionary of the German Language, London 1891.
Kremer, A. von	Culturgeschichte des Orients unter den Chalifen, vol. II, Wien 1877.
Küchler, F.	Beiträge zur Kenntnis der Assyrisch-Babylonischen Medizin, in Assyriologische Bibliothek, vol. XVIII, Leipzig 1904.
Lagarde, P. de	Gesammelte Abhandlungen, Leipzig 1866. Onomastica sacra, Gottingae 1887. Petri Hispani De lingua arabica libri duo, Gottingae 1883.
Lambecius, Petrus.	Commentariorum de augustissima bibliotheca Caesarea Vindobonensi liber secundus, Vindobonae 1769.
Land, J. P. N.	Anecdota syriaca, vol. IV, Lugduni Batavorum 1875.
Lane.	An Arabic-English Lexicon.
Lanzone, R. V.	Dizionario di mitologia egizia, vol. III, Torino 1883.
Lauchert, F.	Geschichte des Physiologus, Strassburg 1889.
Laufer, B.	Die Sage von den goldgrabenden Ameisen, in T'oung Pao, série II, vol. IX.
Layettes du Trésor des Chartes, vols. I and V, Paris 1863–1909.	
Leemans.	See Horapollo.
Leo Imperator.	Tactica; sive De re militari liber, ed. Jo. Meursius, Lugduni Batavorum 1612.
Lespinasse, R. de and Bonnardot, F.	Le livre des métiers d'Étienne Boileau, in Les métiers et corporations de la ville de Paris, Paris 1879.
Lespinasse, R. de	Ordonnances générales; métiers de l'alimentation, in Les métiers et corporations de la ville de Paris, vol. I, Paris 1886.
Lex salica, ed. J. H. Hessels, London 1880.	
Liebermann, F.	Die Gesetze der Angelsachsen, vol. I, Halle a. S. 1898.
Livy.	
Lucan.	
Macdonell, A. A.	Vedic Mythology, Strassburg 1897, in Grundriss der Indo-Arischen Philologie, vol. III. 1. A.
Macrobius, ed. F. Eyssenhardt, Lipsiae 1868.	
Madvig, J. N.	Emendationes Livianae, Hauniae 1877.
Mai, A.	Classicorum auctorum e vaticanis codicibus editorum tomus VII, Romae 1835.
Mann, M. F.	Der Bestiaire divin des Guillaume le Clerc, Heilbronn 1888, in Französische Studien, vol. VI^2.
Marbodus.	See Migne, P. L., vol. CLXXI.
Marca, P. de	Marca hispanica sive limes hispanicus, Paris 1688.
Marcellus.	De medicamentis liber, ed. G. Helmreich, Lipsiae 1889.

Marquart, J.	Beiträge zur Geschichte und Sage von Erān, in Zeitschrift der deutschen morgenländischen Gesellschaft, vol. XLIX.
Martial.	
Masʿūdī.	Les prairies d'or, ed. and trans. by C. B. de Meynard and P. de Courteille, vols. I and II, Paris 1861–1863.
Mela, Pomponius.	
Mémoires de la société de l'histoire de Paris et de l'Ile-de-France, vol. II, Paris 1876.	
Mentz, F.	De Lucio Aelio Stilone, in Commentationes philologicae Ienenses, vol. IV.
Menzel, K., Corssen, P., etc.	Die Trierer Ada-handschrift, Leipzig 1889.
Méry, L. and Guindon, F.	Histoire analytique et chronologique des actes et des délibérations du corps et du conseil de la municipalité de Marseille, vol. I, Marseille 1841.
Meyer, G.	Etymologisches Wörterbuch der albanesischen Sprache, Strassburg 1891.
MGH.	Monumenta Germaniae historica.
	Auctores antiquissimi, vols. IX and XII.
	Epistolae, vol. I.
	Formulae, in Leges, sec. V.
	Capitularia, in Leges, sec. II.
	Leges, sec. I, vol. II^{1}, vol. V^{1}.
	Leges (ed. Pertz), vols. III and IV.
	Scriptores rerum langobardicarum et italicarum.
	Scriptores rerum merovingicarum, vols. I and II.
Migne, J.	Patrologia graeca, vols. VIII, XIII, XVIII, XXVIII, XXX, XLII, XLIII, LXVII, LXIX, LXXX, LXXXVII^{1}, CVIII, CXXIII.
	Patrologia latina, vols. I, IV, X, XX, XXI, XXII, XXIII, XXIV, XXV, XXVI, XXVII, XXXIV, XXXV, L, LXXVI, LXXXII, LXXXIII, LXXXVIII, XCI, XCII, XCVI, C, CVII, CVIII, CXI, CXIV, CXX, CXLV, CLIII, CLXXI.
Miklosich, F.	Vergleichende Grammatik der slavischen Sprachen, vol. I, Wien 1879.
Miklosich, F. and Müller, J.	Acta et diplomata graeca medii aevi sacra et profana, vols. V and VI, Vindobonae 1887–1890.
Mommsen, Th.	Digesta Iustiniani Augusti, vols. I and II, Berolini 1870.
	See Solinus.
Monlau, P. F.	Diccionario etimológico de la lengua castellana, Madrid 1881.
Monticolo, G.	I Capitolari delle arti veneziane, vols. I and II^{1}, Roma 1896–1905.
Müller, F.	Zur Frage über den Ursprung der uigurisch-mongolisch-mandžuischen Schrift, in Wiener Zeitschrift für die Kunde des Morgenlandes, vol. V, Wien 1891.
Müller, W. Max	Asien und Europa nach altägyptischen Denkmälern, Leipzig 1893.

Muñoz y Romero, T.	Coleccion de fueros municipales, vol. I, Madrid 1847.
Muratori, L. A.	Antiquitates italicae medii aevi, vol. II, Mediolani 1739.
Nicole, J.	Le livre du préfet, Genève 1893, in Mémoires de l'Institut Genevois, vol. XVIII.
Nöldeke, Th.	Ueber den syrischen Roman von Kaiser Julian, in Zeitschrift der deutschen morgenländischen Gesellschaft, vol. XXVIII.
Nolhac, P. de	Le Virgile du Vatican et ses peintures, in Notices et extraits des manuscrits de la Bibliothèque Nationale et autres bibliothèques, vol. XXXV.
Nonius.	De conpendiosa doctrina libri XX, vol. I, Lipsiae 1903.
Oppian.	Ἁλιευτικά and Κυνηγετικά. See Jones.
Ordonnances des Rois de France, vol. XV, Paris 1811.	
Oribasius.	Oeuvres d'Oribase, ed. Bussemaker and Daremberg, vols. V and VI, Paris 1873–1876.
Origen.	See Migne, P. G., vol XIII. Die griechischen christlichen Schriftsteller der ersten drei Jahrhunderte, vols. III and V, Leipzig 1901–1913. See Robinson.
Oudendorp, F.	C. Julii Caesaris . . . Commentarii, Lugduni Batavorum, Rotterodami 1737.
Oviedo y Valdés, F. de	De la natural hystoria de las Indias, Toledo 1526. Historia general y natural de las Indias, vol. I, Madrid 1851.
Palaephatus.	De incredibilibus, ed. J. F. Fischer, Lipsiae 1789.
Palander, H.	Die althochdeutschen Tiernamen, Darmstadt 1899.
Palladius.	The Lausiac History of Palladius, II, ed. C. Butler, in Texts and Studies, Contributions to Biblical and Patristic Literature, vol. VI, no. 2, Cambridge 1904. The Lausiac History of Palladius, trans. by W. K. L. Clarke, London, New York 1918.
Pallas, P.	Zoographia Rosso-Asiatica, vol. I, Petropoli 1831.
Paschasius.	See Migne, P. L., vol. CXX.
Paulinus of Milan.	See Migne, P. L., vol. XX.
Paulus Diaconus.	Historia Langobardorum, in MGH., Scrip. rer. lang. et ital.
Paulus Festus.	
Pausanias.	
Petronius.	
Petrus Damianus.	See Migne, P. L., vol. CXLV.
Philo Alexandrinus.	Opera quae supersunt, ed. L. Cohn and P. Wendland, vols. II and V, Berolini 1897–1906.
Pigafetta, A.	Magellan's Voyage Around the World, by Antonio Pigafetta, trans. and ed. J. A. Robertson, vol. I, Cleveland 1906.

Pigafetta, F.	A Report of the Kingdom of Congo, and of the Surrounding Countries, trans. and ed. Margarite Hutchinson, London 1881.
Pitra, J. B.	Spicilegium solesmense, vol. III, Parisiis 1855.
Platzmann, J.	Das anonyme Wörterbuch Tupi-Deutsch und Deutsch-Tupi, Leipzig 1901.
Pliny.	Naturalis historiae libri XXXVII, ed. C. Mayhoff. The Natural History of Pliny, trans. by J. Bostock and H. Riley, 6 vols., London 1855–1857.
Polemius Silvius.	See MGH., Auct. ant., vol. IX.
Polidori, F.-L.	Statuti senesi scritti in volgare ne' secoli XIII e XIV, vol. I, Bologna 1863.
Pollux.	
Priscianus.	
Procopius of Gaza.	See Migne, P. G., vol. LXXXVII^1.
Pseudo-Athanasius.	See Migne, P. G., vol. XXVIII.
Pseudo-Berosus.	See Annius.
Pseudo-Turpin.	
Rabanus Maurus.	See Migne, P. L., vols. CVII, CVIII, CXI.
Ramusio, G. B.	Il viaggio di Giovan Leone, Venezia 1837.
Regii neapolitani archivi monumenta, vol. III, Neapoli 1849.	
Reinaud, J. T.	Relation des voyages faits par les Arabes et les Persans dans l'Inde et à la Chine dans le IX^e siècle de l'ère chrétienne, vol. I, Paris 1845.
Revue des langues romanes, vols. IV, V, VII, XVI.	
Rezasco, G.	Dizionario del linguaggio italiano, Firenze 1881.
Ribbeck, O.	Prolegomena critica ad P. Vergili Maronis opera maiora, Lipsiae 1866.
Riese, A.	Anthologia latina, vol. I^1, Lipsiae 1894.
Robinson, J. A.	The Philocalia of Origen, Cambridge 1893.
Rolland, E.	Faune populaire de la France, vols. I, VII, XI, Paris 1877–1906.
Rolls of Parliament, vols. I and II.	
Rose, V.	Anecdota graeca et graecolatina, vol. II, Berlin 1870.
Rufinus.	See Migne, P. L., vol. XXI.
Saumaise.	Claudii Salmasii Plinianae exercitationes, Trajecti ad Rhenum 1689.
Schaube, A.	Handelsgeschichte der romanischen Völker des Mittelmeergebiets bis zum Ende der Kreuzzüge, München, Berlin 1906.
Schiller, K. and Lübben, A.	Mittelniederdeutsches Wörterbuch, Bremen 1875–1881.
Schlutter, O. B.	Das Epinaler und Erfurter Glossar, Hamburg 1912.
Schmeller, J. A.	Bayerisches Wörterbuch, München 1872–1877.
Schrader, O.	Sprachvergleichung und Urgeschichte, Jena 1883.
Schulte, A.	Garbo und Florenz, in Zeitschrift für die gesamte Staatswissenschaft, vol. LVIII, Tübingen 1902.
Schwarzlose, F. W.	Die Waffen der alten Araber aus ihren Dichtern dargestellt, Leipzig 1886.
Seneca.	
Serapion.	See Guigues.

Servius Grammaticus.	See Thilo and Hagen.
Seybold, C. F.	Glossarium latino-arabicum, Berolini 1900.
Sharpe, R. R.	Calendar of Letter-Books Preserved among the Archives of the Corporation of London at the Guildhall, Letter-Books B-F, London 1900–1904.
Silius Italicus.	
Simonet, F. J.	Historia de los Mozárabes de España, Madrid 1897–1903.
Smirke, E.	Ancient Consuetudinary of the City of Winchester, in The Archaeological Journal, vol. IX.
Smith, H. P.	Notes on the Red Heifer, in Journal of Biblical Literature, vol. XXVII.
Smith, R. Payne	Thesaurus syriacus, vol. I, Oxonii 1879.
Solinus.	Collectanea rerum memorabilium, ed. Th. Mommsen, Berolini 1895.
Sophocles, E. A.	Greek Lexicon of the Roman and Byzantine Periods, Boston 1870.
Sozomenus.	See Migne, P. G., vol. LXVII.
Stade, B. and Schwally, F.	The Books of Kings, in The Sacred Books of the Old Testament, part 9, Leipzig 1904.
Stange, E.	Die Encyklopädie des Arnoldus Saxo, in Program des königlichen Gymnasium zu Erfurt, no. 278, Erfurt 1905.
Starčevski, A. V.	Siberski perevodčik, S.-Peterburg 1893.
Statuta communis Parmae digesta anno 1255, Parmae 1856.	
Statuta communis Parmae ab anno 1266 ad annum circiter 1304, Parmae 1857.	
Statuti del comune di Padova dal secolo XII all' anno 1285, Padova 1873.	
Stein, W.	Akten zur Geschichte der Verfassung und Verwaltung der Stadt Köln in 14. und 15. Jahrhundert, vol. II, Bonn 1895.
Steinmeyer, E. and Sievers, E.	Die althochdeutschen Glossen.
Stephanus.	Thesaurus graecae linguae.
Stieda, L.	Ueber die Namen der Pelzthiere, in Altpreussische Monatsschrift, vol. XXIV.
Strabo.	
Syncellus.	See Migne, P. G., vol. CVIII.

Tacitus.	
Tertullian.	See Migne, P. L., vol I.
Theodoretus.	See Migne, P. G., vol. LXXX.
Theodosian Code, ed. Th. Mommsen.	
Theophrastus.	Opera quae supersunt omnia, ed. F. Wimmer, vol. III, Lipsiae 1862.
Theophylactus.	See Migne, P. G., vol. CXXIII.
Thevet, A.	La cosmographie universelle, vol. II, Paris 1575.
Thierry, A.	Recueil des monuments inédits de l'histoire du Tiers État, première série, vol. II, Paris 1853.
Thilo, G. and Hagen, H.	Servii Grammatici qui feruntur in Vergilii Carmina commentarii, Lipsiae 1881–1902.
Timotheus of Gaza.	Hermes, vol. III.

Todaro, A.	Constitutiones regni Siciliae, vol. I¹, Palermo [1887–1888].
Traube, L.	Das Alter des Codex Romanus des Virgil, in Strena Helbigiana, Lipsiae 1900.
Tregear, E.	The Maori-Polynesian Comparative Dictionary, Wellington, N. Z., 1891.

Vámbéry, H.	Etymologisches Wörterbuch der Turko-Tatarischen Sprachen, Leipzig 1878.
Van der Lith, P. A.	Livre des merveilles de l'Inde, Leide 1883-1886.
Van Drival.	Cartulaire de l'abbaye de Saint-Vaast d'Arras, rédigé au XIIᵉ siècle par Guimann, Arras 1875.
Velleius Paterculus.	
Vergil.	See Cerda. The Works of Virgil, trans. by J. Conington and H. Nettleship, vol. I, London 1898.
Verwijs, E. and Verdam, J.	Middelnederlandsch Woordenboek, s'-Gravenhage 1885–1912.
Villanueva, J.	Viage literario á las iglesias de España, vol. IX, Valencia 1821.
Vincent of Beauvais.	
Vitruvius.	De architectura libri decem, ed. F. Krohn, Lipsiae 1912. De architectura libri decem, ed. J. G. Schneider, vol. III, Lipsiae 1808.

Walafrid Strabo.	See Migne, P. L., vol. CXIV.
Wartmann, H.	Urkundenbuch der Abtei Sanct Gallen, vol. I, Zürich 1863.
Weinhold, K.	Ueber deutsche Dialectforschung, Wien 1853.
Wiedemann, F.	Ehstnisch-deutsches Wörterbuch, St. Petersburg 1893.
Wiener, L.	Byzantinisches, I, in Zeitschrift für romanische Philologie, vol. XXXIV. Contributions, vols. I, II, III. English Lexicography, in Modern Language Notes, vol. XI. Materialien zu einer Geschichte der Kleidung im Mittelalter, II, in Revue de linguistique et de philologie comparée, vol. XLIV.
Wilkinson, J. G.	Manners and Customs of the Ancient Egyptians, vol. III, London 1837.
Winteler, J.	Die Kerenzer Mundart des Kantons Glarus in ihren Grundzügen dargestellt, Leipzig, Heidelberg 1876.
Wright, T. and Wülcker, R. P.	Anglo-Saxon and Old English Vocabularies, vol. I, London 1884.

Yonge.	See Athenaeus.

Zdekauer, L. Statutum potestatis comunis pistorii anni 1296, Mediolani 1888.
Zdrůbek, F. B. Základové českého pravopisu a mluvnice, Chicago 1882.
Zeitschrift für deutsche Philologie, vol. IV.
Zeitschrift für deutsche Wortforschung, vol. II.
Zeitschrift für deutsches Alterthum, vol. I.
Zoega, G. Catalogus codicum copticorum manuscriptorum, Leipzig 1903.

INTRODUCTION.

1.

It has been my habit, in my philological works, not to indulge in personalities and not to refer to the dissenting views of my predecessors in contemptuous or scurrilous terms. There is no reason why this science cannot be kept a clean, gentlemen's intellectual sport, in which all, no matter how diverse in opinion, are supposed honestly and strenuously to strive for the truth. If one has to succumb in his views, this must happen on the basis of better attested facts, not by strength of vilification and vulgarity. Similarly I have, in my *Commentary*—and in the first three volumes of my *Contributions*—totally abstained from controversies, and have treated my savage critics with silence. They, however, have taken my silence as a sign of weakness, and have continued vociferously to attack me, descending to scientific Billingsgate and low vulgarity in their tirades. One could expect more consideration in an Apache cabaret, than in the supposedly high-toned Odeon in which these gentlemen practice the gentle art of kicking off strangers' hats and make *salti mortali* on the tight rope of philology before admiring callow youths. I am, therefore, constrained to give a list of the critics of my *Commentary* and the first volume of my *Contributions*, in order that the reader may have them for easy reference and may convince himself of the low depths to which the old school philology has fallen in the choice company here represented.

The following criticisms of my *Commentary* have come to my notice: L. Bloomfield, in *The Journal of English and Germanic Philology*, vol. XV (1916), pp. 299-304; Francis A. Wood, in *Modern Philology*, vol. XIV (1916-1917), p. 384; Henry Bradley, in *English Historical Review*, vol. XXXI (1916), p. 174 f.; A. Meillet, in *Revue critique d'histoire et de littérature*, vol. LXXXI (1916), p. 71 f.; M. G., in *Revue des langues romanes*, vol. LIX (1916-1917), p. 418 f.; *The Nation*, vol. CIV (1917), pp. 342-344; R. Priebsch, in *The Modern Language Review*, vol. XII (1917), pp. 113-119; W. P. Reeves, in *Modern Language Notes*, vol. XXXIII (1918), pp. 242-246.

The following criticisms of my first volume of *Contributions* are known to me: Cl. Huart, in *Revue critique d'histoire et de littérature*, vol. LXXXV (1918), p. 181 f.; Henry Bradley, in *English Historical Review*, vol. XXXIII (1918), pp. 252-255.

As one reads Meillet's attack on my personality and on Harvard University, one has the lurking suspicion that in his frenzy his only purpose was to scare weak-kneed University Publication boards into refusing the printing of my books. If any birds of his feather have been affected by him, so much the worse for them. In any case, Harvard University does not withdraw from me the use of its motto *Veritas*, and in its name many a victory will be recorded in time. A youthful philologist of the Central West, Bloomfield, on whose lips the milk of graduate philology has not yet dried and who, in all likelihood, would not be able to read a page of Russian or Old Bulgarian without a dictionary, steps out of his way to lecture me on Russian and Slavic. The philologist of the University of Chicago, Wood, who enlightens the Cimmerian darkness of philology with starred forms in endless profusion, appeals to the scientists of the country to stop my utterances. I reciprocate by a similar appeal to the scientists of the country and the world not to interfere with Wood's elucubrations, and beg the waste-paper periodicals to print them as fast as they are cackled, because nothing will bring greater discredit on the old school than Wood's writings, even though it is a pity that they lead to an inanity of doctors' theses unparalleled in University annals. In the years 1915, 1916 the German department of the University of Chicago, of which Mr. Wood is the guiding spirit, gave doctor's degrees on the basis of the following dissertations:

1. "The Semantic Development of Words for 'Eating and Drinking' in the Germanic Dialects."
2. "Parts of the Body in Older Germanic and Scandinavian."
3. "The Semantic Development of Words for 'Walk, Run' in the Germanic Languages."

In the nearly 500 pages of these three inane dissertations, which look more like tasks in a penal institution, there is not one word of discussion, nothing but words. The cause for Mr. Wood's frenzy in the face of my work is obvious: he knows that my method will put a stop to philological work of the Packing-House variety, and hence his appeal to the scientists.

For the present I wish to confine myself to putting two of my critics in the pillory, Mr. Huart, of France, and Mr. Henry Bradley, of England. The first, in reviewing my *Contributions*, makes this statement: "On regrettera seulement qu'à un moment où les descendants des Goths ont mené la conduite que l'on sait, l'auteur ait cru devoir adapter à son ouvrage, en guise d'épigraphe, des vers d'Alcuin." What one wants to know is this: 1. What have my political views got to do with the subject matter under discussion? 2. How am I making pro-German propaganda in a book in which I am trying to destroy the scientific creations of the Germans? 3. If Huart had shown the least amount of critical acumen, he would have inquired into my political past and would have discovered that I was one of the seven charter members of the Pro-Ally Society in 1916, increased a month later to fifty, who by word and action spurred America on to participation in the war on the side of the Allies. A critic who blunders so egregiously on matters of good taste, common sense, and primary facts, is, indeed, not qualified to be a critic of a book of which he understands neither the contents nor the purpose. It would seem that stupidity could not go any further, but it actually outdid itself in the case of Mr. Henry Bradley.

Mr. Bradley, the guardian angel of the *Oxford Dictionary*, is a gentleman of the blunderbussing type. In an article which I wrote in 1896, entitled *English Lexicography*,[1] I directed attention to the reckless way in which the editors of the *Oxford Dictionary* had treated the old word books and dictionaries, and pointed out more than 600 blunders and omissions in the first three or four volumes, finishing up with the sentence: "It is to be sorely regretted that the *Oxford Dictionary* does not incorporate the results of a thorough study of the old dictionaries, cyclopedias, and word books."

As the work proceeded, the wretched etymologies contained in the *Oxford Dictionary*, which are of the "you-pay-your-money-and-you-take-your-choice" variety, convinced me that Mr. Bradley, who is more than anyone else responsible for them, was temperamentally unfit to handle so delicate a subject. In 1911, therefore, I spoke of the *Oxford Dictionary* as "that great repository of quotations and etymological blunders."[2] A few years later I was obliged to characterize Mr. Bradley *et al.*, not as philologists, that is, as lovers of the word, of truth, but as *philanderers*, that is, lovers of men, of authorities, who could not, if they tried, quote facts correctly. Indeed, I chose the word *philanderer* on the basis of the etymology given for *philander* by the *Oxford Dictionary*, where we read: "A name given to certain marsupial animals, from the name of Philander de Bruyn, who saw in 1711 in the garden of the Dutch governor of Batavia the species named after him, being the first member of the family known to Europeans (Morris *Austral Eng.*)." Even the most primitive caution, the inspection of a library catalogue, would have shown the writer or the editor that de Bruin's first name was *Cornelis*, and not *Philander*. A secondary caution, the inspection of the book itself, would have shown him that *Filander* is there mentioned as a native name. A tertiary caution, the inspection of a Malay dictionary and other works dealing with the Malays, would have shown him that the Malay name of the animal is *pĕlandok* or *pĕlandu*. But this is exactly what Mr. Bradley does not know how to do. He abhors facts, and prefers to traffic in theories and to depend on "authorities." Morris's *Austral English* is an authority, so that settles it. I am unable to find in the *Oxford Dictionary* the use of first sources. Everything is at second hand and very frequently of the *philander* type of precision.

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[1] *Modern Language Notes*, vol. XI, col. 352 ff.

[2] See p. xlvi.

It is clear that Mr. Bradley's frenzy is due to the panicky condition in which my discoveries leave him. If even a small part of them is correct, all his superb, second-rate philology goes to smash, and his life's work is a failure. From this there is an escape, by discrediting my work through an enormous and uncalled-for vulgarity. Mr. Bradley canonizes himself a saint in philology, and, to give himself a semblance of fairness, he patronizingly admits that my treatment of Vergil Maro the Grammarian is correct. Here is the way he ends his review of my *Contributions:* "The volume is extremely amusing, not less by its cleverness than by its absurdities, and it contains some quotations and references that may be found useful. The chapter on 'Virgilius Maro' is, as we have gladly acknowledged, not destitute of value, and possibly there may be a few other instances in which Professor Wiener's unquestionable acuteness and industry have not been misapplied. But as a whole the work is a mass of wild extravagance, compared with which the writings of Mr. Ignatius Donnelly are models of sane and judicious reasoning. Happily for the credit of American scholarship this book is not, as was the author's former volume, published by the Harvard University Press."

Now Mr. Bradley's blunderbussing never abandons him. In the very reviews in which he takes me to task for typographical errors, he spells my adopted state "Massachussets," indeed a venial offence, except that gentlemen who live in glass houses, etc. The most pathetic case of blunderbussing that he has committed of late appears in a number of the *Classical Quarterly* for April, 1919, where his article, *Remarks on the Corpus Glossary*, ends with the following postscript: "Since the above was in type, and too late for any extensive corrections to be made, I have become convinced by evidence kindly furnished to me by Professor W. M. Lindsay of the unsoundness of the argument on which I principally relied as proving that the archetypal glossary (as distinguished from the additions made by the redactor of Corpus) contained a large number of Aldhelm glosses," etc. According to the school of philology to which Mr. Bradley belongs, the same subject may be accepted or rejected, provided it is all done in the approved lingo of philology. The truth counts for little, theories for everything. Again and again Mr. Bradley remains true to his temperamental blunderbussing.

In spite of his obvious incapacity I should have left Mr. Bradley to oblivion, for the sake of the little good he may have done in life, had he not been significantly devoid of the basic elements of an English gentleman, those of fair play. As it is, he has himself to blame for my record of his quarter of a century of blundering, which makes his acting as a critic of my works impossible. "Si tacuisses, philologus mansisses!"

2.

GERMAN LOAN-WORDS AND THE SECOND SOUND SHIFTING.[1]

It is well established that at different times, from the beginning of the OHGerman period up to the late Middle Ages, certain consonant changes have taken place in the Upper German dialects. These changes are collectively known as the Second Sound Shifting, although not all consonants have permutated simultaneously throughout the whole linguistic area. It is rightly assumed that barring peculiar irreducible consonant groups and crossing influences, this change took place uniformly within the whole language, and that Modern High German represents the group of the Second Sound Shifting.

German philologists are accustomed to subject loan-words to the test of native words and to judge of the approximate age of their introduction by the manner in which the permutations have taken place. They seem to forget that what is true of changes within the languages is not *eo ipso* true of changes in newcomers whose foreign garb marks them as belonging to a special class. As far as I know, no one has as yet attempted to investigate German loan-words properly, for Kluge's etymologies cannot be regarded in this light. His methods of putting foreign words to the test of the sound mutation leads him to some strange and amusing results.

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[1] *Modern Language Notes,* vol. X, col. 10 ff.

Kluge[1] regards the affricata *pf* as the surest sign of an early borrowing, and to this *pf* we shall mainly devote our attention. Under *Pfalz* we find: "As the permutation of L. G. *p* to H. G. *pf* indicates, the word must have been naturalized in G. as early as the beginning of the eighth century." Hence he argues that *Pfahl*, *Pfosten*, *Pflanze* had been introduced before the OHGerman period. But it cannot be denied that the same OHGerman has the words *Paar*, *Pacht*, *Palme*, *Pech*, *Petersilie* and many other words with unmutated *p*, and there is no reason to think that these are of a younger date than the former. Under *Treppe* he gives a form *Trepfe* for the sixteenth and seventeenth centuries. Are we to suppose two distinct borrowings from the North for it, one before and one after these two centuries? And how did the sound all of a sudden shift so late? Under *Pforte* we find: "Borrowed in the O. H. G. period in the eighth century, from Latin *porta*, hence the absence of the permutation of *t* to *z*, which had been accomplished even in the seventh century." But we have learned above that the change to *pf* had been accomplished before the beginning of the eighth century, so that there is left only the uncomfortable narrow limit between the seventh and the beginning of the eighth century, in which to slip *porta* into the language.

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[1] Kluge's *Etymological Dictionary*, fourth edition, London 1891. Since writing this I have consulted the fifth edition; there is no improvement there in the treatment of loan-words.

And now, since *t* has changed to *z* before the seventh century, Kluge places *Ziegel* in the fifth or sixth century. *Tafel*, says he, is borrowed in the OHGerman period; *Zabel*, of course, to suit his theory, is older than OHGerman. But what reason is there to suppose that *Ziegel*, like all other architectural terms, is older than *Turm*, OHG. *turri*, *turra?* And what are we to do with *Ketzer* from καϑαρός in the eleventh century (ϑ at that time could have come in only through the medium of Lat. *th* or *t*), which shows a shifting at such a late time?

Words introduced by the Church into Germany, Kluge says, show no mutation; yet Christianity was known and generally accepted in Upper Germany long before the eighth century, before *p* had gone over to *pf*, and he can adduce no good reason why *Pfaffe* should be older than *Papst* and *Pfarrer* than *predigen*.

These few examples illustrate the improper treatment of loan-words. The first mistake made by philologists in dealing with them arises from a misconception of the manner in which sound changes take place and perpetuate themselves. Winteler[1] says by implication that Upper German consonantism differs from Northern consonantism in that it distinguishes quantity of explosive sounds and not quality: *b* and *p*, *g* and *k*, *d* and *t* differ only by a greater or lesser pressure of the respective organs, and are all voiceless. HG. *p*, *k*, *t*, when used in words which the Swiss hear for the first time, are reproduced by them in an aspirated or affricated form, namely, *ph*, *kh* or *kχ*, *th*. The main features of the second sound shifting are greatly due to this UGerman aspiration. This, doubtless, has been a characteristic of UGerman speech upwards of ten centuries, and the OHGerman and MHGerman graphic signs *ph*, *ch*, *th* merely mark the first steps towards a stronger enunciation resulting in affricatae in two of the three sounds. *The second sound shifting owes its origin primarily to a particular locality and a particular people, not to a particular time.* At a later time, when the art of writing becomes general, this native change may be retarded and it may even retrograde, but of this I shall speak later. This affrication is going on to-day as much as in the time of the Carlovingians, and will go on as long as books and a closer intercourse with the learned do not exert a corrective influence.

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[1] *Die Kerenzer Mundart des Kantons Glarus in ihren Grundzügen dargestellt*, Leipzig and Heidelberg 1876.

Before entering upon a further discussion of the Germanic sound shifting, I shall illustrate the working and persistency of sound substitution in some Russian loan-words. In Russian, as well as other Slavic idioms, *f* exists only in foreign words. In native words the voiced dentolabial spirant frequently becomes voiceless before consonants and finally, so that in reality *f* is not an impossible sound to a Russian. Ever since the introduction of Christianity, Gr. ϑ has been pronounced as *f* in Russian, hence *Afiny*, *Korinf*, *Fomá* (Thomas). And even today a Slav's first attempt to pronounce *I think* is sure to result in *I fink*. In White Russian, *f* is preserved in all such foreign words as the White Russian continually hears pronounced by Germans and Poles living in his midst, but he invariably at first hearing will change all his *f*'s of foreign words to *χv* or even *χ*. So, while we find in WRussian *fura*, *figura*, *fefer*, *fal'š*, other foreign words, for example, *fonar*, *fest*, *fortuna*, *fartuk*, *oficér* become *χvonar*, *χvest*, *χvortuna*, *χvartuk*, *aχvicer;* and the Graeco-Russian names *θeodosij*, *θeodor* become *Xvedós*, *Xvjódor* or even *Xadós*, *Xadór*. Now *χv* has been for many centuries a distinctive Russian combination, and in two out of six OSlavonic words with initial *χv* recorded by Miklosich, Russian influence is suspected.[1] We see here a process of sound mutation in operation for many centuries and one not likely soon to cease.

In Silesian dialects the initial affricata *pf* has advanced to simple *f*, while medial and final *pf* or *f* have retrograded to *p*,[2] but owing to book influence *pf* is still felt as a legitimate correspondent to LGerman or foreign *p*;[3] hence we find the forms *Supfe*, *Trepfe*, *Klapfer*, *Klumpfen*, and what is still stranger, Polish *pieniadze* has undergone sound shifting and has become *Phinunse*.[4] Another example of aspiration is *Tôbich* for *Tabak*,[5] which is certainly a modern word. More frequently, however, the reverse process of softening has taken place in consequence of the checking influence of books.[6]

In the Kerenz dialect initial *pf* corresponds to UG. *pf*.[7] Loan-words introduced through Modern German change their initial *p* to *ph*, while those that came in through MHGerman (book-language) show unmutated *p* or even *b*. Now *ph* is the nearest approach to *pf:*

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[1] Franz Miklosich, *Vergleichende Grammatik der slavischen Sprachen*, Wien 1879, vol. I, p. 239.

[2] Karl Weinhold, *Ueber deutsche Dialectforschung*, Wien 1853, p. 73.

[3] "Meines Wiszens wird nur (ausz religiöser Scheu) in Schepfer *creator* das *pf* rein gesprochen; das Gefäsz zum Schepfen heiszt Schepper. Formen wie Supfe, Trepfe sind wol ausz missverstandener Sucht recht rein zu sprechen zu deuten, oder sind sie die streng hochdeutschen Formen?" *ibid.*

[4] "Das polnische Wort *pieniadze* Geld (ausz dem deutschen Pfennig entlehnt) hat bei der Rückaufname in das deutschschlesische die Lautverschiebung ergriffen: *Phinunse* (Trebnitz)," *ibid.*, p. 74.

[5] *Ibid.*, p. 85.

[6] The softening of *p* to *b*, *k* to *g*, *t* to *d*, so common in MHGerman, and the reverse process of hardening, no doubt arise from the absence of a quantitative difference between the mediae and tenues in the Upper German dialects. While the sandhi rules of Notker's canon may have had sound foundations in actual differentiation, yet on the whole the interchange of mediae with tenues, or, to speak with Winteler, of fortes with lenes, is rather arbitrary in MHGerman. The Silesian dialects distinguish between mediae and tenues, but evidently owing to book influence foreign words appear in the MHGerman form. "Diese Neigung des deutschen, fremde Labialtenuis zu erweichen, wo sie nicht aspiriert wurde, erscheint bekantlich mhd. in auszgedenter Weise," Weinhold, *op. cit.*, p. 72.

[7] Winteler, *op. cit.*, p. 44.

Phak Pack, *phur* pur, *Phersu* Person, *Phauli* Paul, "ein in Bauernfamilien noch fremder Name."[1] So, too, Goth. *k* has become *x*, while MHG. *k* invariably sounds *kx* (*k*), and in other Swiss dialects *kx* corresponds to organic Goth. *k*.[2]

When we say that in Upper German the permutation *pf* for *p* was accomplished in the seventh century, we merely mean that it was then universally accomplished for native words; but the change in newly introduced foreign words may take place for many centuries later and is not excluded even to-day in cases where book influence is not possible.

Another error is to suppose that all foreign words adopted before the seventh century must have undergone sound change together with native words. If the origin of the word is not transparent and it offers no strange combinations, then naturally it is subjected to the same treatment as German words. The word, however, may have originated in Latin books and its origin may long be present in the mind of the speaker, or it may be a Romance word for some commodity or luxury accessible only to the upper classes, who are aware of its foreign origin or even are conversant with the foreign language. In this case a word may withstand the sound shifting for an indefinite time, or, at some later time, it may become the common property of the lower classes and it may undergo the sound change.

Words referring to Church and religion form a large group of book words whose Latin origin was continually before the eyes of priests and communicants, and it is not to be wondered at that *Priester*, *Papst*, *Dom*, *Pein*, *Plage*, *predigen*, *Kreuz*, *Altar* should show no sound shifting, and yet we find *phîne*, *pflâge*, *pflôge* (Lexer). Where, however, the corrective of the Latin book-language was absent and the word was diffused among the masses, the sound change could have taken place even at a later period. There is no reason to doubt the origin of *Pfaffe* from LLat. *papa* and *Pfarre* from *parrochia*. What Kluge gives under *Pfaffe* is no proof at all of Greek influence in the German Church. Gr. παπᾶς is first mentioned in the fourth Oecumenical Council (A. D. 451);[1] in the following centuries it occurs in the plural form *papades* in the Roman church and not before we reach the twelfth or the thirteenth century does *papa* become general in the sense of *clericus*.[2] As this word is not found in books of prayer or ritual, it is natural that it should become the full possession of the people in a true Germanic form. Precisely the same is to be said of *parrochia*,[3] which being also a Greek word became Latinized at a relatively late time; not being found in the Bible and the prayerbook there was nothing in its way of becoming naturalized. Kluge objects to the loss of the last syllable, but such losses are not rare in German.

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[1] "In Uebereinstimmung mit dem mhd. erscheint *b* für welsches *p*, meist im Anlaut, z. B.: *balme*, etc. . . . doch haben andere die Fortis behalten, z. B. *par* . . . während noch andere, offenbar durch das Hochdeutsche vermittelte, die Aspirata aufweisen," *ibid.*, p. 56.

[2] *Ibid.*, p. 50 and 52. A curious case of a loss of a supposed UGerman sound mutation is seen in Ger. *Zins*, Lat. *census*, which in OSaxon became *tins*.

[1] E. A. Sophocles, *Greek Lexicon of the Roman and Byzantine Periods*, Boston 1870. He gives also πάππας as an equivalent for παππᾶς; and since a corresponding word for *clericus* does not occur in the Romance languages, the possibility of *Pfaffe* being merely a popular form of *Papst* is not excluded.

[2] To judge from Ducange, the word was first introduced into the Roman church by pope Zacharias who was by birth a Greek (eighth century). The nearest examples following this first quotation are all from bulls and chartularies of the time of Innocent III (end of twelfth century).

[3] Ducange gives *parofia* as a variation for LLat. *parochia*, and we find this in the form *parafia* as the common word for parish in Polish, and *paropi*, *paropia*, *parrofia*, *parrofi*, *parofi*, *perofia* in the Provençal dialects (Mistral). No doubt *parofia* existed in MHGerman, and it is this form that must have given rise to MHG. *pharrhof* (see Lexer, *pharrehof*) in which there is an attempt at popular etymology and which means no more and no less than merely *pfarre*. Now *pfarre* must naturally result out of this combination. This becomes more probable when we consider the other popular etymology *pharreherre* for *pharraere* by the side of it: "ausdeutend entstellt aus *pharraere*, Wack," (Lexer).

So it is by no means strange that *Teppich* should show no sound changes, although it is found already in the OHGerman period. Yet it would have been but fair for Kluge to quote Lexer *in toto* and not to avoid forms which would work against his pet theory of precisely locating the borrowing of a word. Now we find the forms *tepit*, *teppit*, *teppet*, *tept*, *tepich*, *teppich*, *tepech*, *teppech*, *tepch*, *deppich*, *tebich*, *tewich*, *töppich*, *teppît*, *tapît*, *tapet*, *tapeiz*, and last, but not least, *zeppet*.[1] So, after all, a partial sound change occurs, and Kluge would be compelled to place the origin of the word before the seventh instead of into the eighth century. But it is really immaterial what the form of the word is, for the different approximations found in MHGerman are precisely what we should expect without being driven to as many new derivations as there are forms.

The Germans are supposed to have borrowed a number of architectural terms from the Romans, and if there is any structural form with which the Germans were acquainted earlier than any other it is certainly the tower, Lat. *turris*. And yet this word has persisted as *turri*, *turra* in OHGerman, *turm*, *turn* in MHGerman and Mod. HGerman. What is Kluge to do with this obstinacy? He simply passes it over in silence. As a matter of course, the Latin word stayed with them as an ever present reminder of Roman power, and is no doubt as old as *Tiegel*, *Pfahl* and *Pfosten*.

The tendency of ascribing culture and cultivation of plants to Rome, I am afraid, has gone too far. De Candolle shows conclusively that certain kinds of plums[1] are indigenous to the central European plain, and that the cherry[2] and the pear[3] had been cultivated in Germany from time immemorial. We should not assume a Roman origin except where it can be proved historically that the first importation came from Italy. A coincidence of sounds with the serviceable second sound shifting can at best be only adduced as a proof of common possession.[4]

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[1] Here are a few more examples from Lexer: *panzier*, *panzer*. . im 16. jh. bei Erasm. Alberus auch lautverschoben *pfanzer*; *pâr*, *par* . . *phar*; *patêne*, *patên*, *phatene*, *phaten*; *phahte*, *phaht*, md. *phacht*, *pacht*, *phât*, *packt*; *phlanzen*, *planzen*(!); *plâge*, *pflâge*, *pflôge*; *tambûr*, *tambûre*, *tanbûr*, *tabûr*, *tapûr*, *támbur*, *tamber*, *zambûr*(!!); *timît*, *dimît*, *zimît*. We certainly could not regard *zambûr*, from Fr. *tambour*, as introduced before the seventh century.

Although *Pfirsich* exhibits the permutations completely, it is very doubtful whether it was known in Germany before the MHGerman period, and its absence from OHGerman is not at all so strange. The earliest example in Littré under *pêche* is of the thirteenth century and the Eng. *peach* shows that it is a late French importation. *Rettig*, according to Kluge, comes directly from Lat. *radicem* before the OHGerman period, on account of its final guttural. As a matter of fact, *radix* received the particular meaning of *raphanus* on French soil, as *raditz*, *rais*, etc., in Provençal and *radis* in French indicate, hence it is more likely that the radish became known as an edible root from France. Altogether, French importations have been placed by several centuries too late, and many of the southern fruits were more likely introduced from France, such as the fig and the peach.[5]

The Spanish boot of the second sound shifting has been rigorously applied by Kluge to the ending of words and with disastrous results. When a foreign word is introduced into the native language with a different sound system, the tendency will be to so transform it as to give it a native appearance. The sound mutation is a powerful agent in this direction, but it affects only the first part of the word, which in German corresponds to the accented root syllable of the word.[1] In the following unaccented syllables the sound mutation according to the strict law does not always produce the desired effect, and more convenient transformations which follow the law of least resistance take place. Strange syllables receive the native garb, and dialectically *patata* becomes *Patak*,[2] *Appetit*, *Apetīk*[3] and *Tabak*, *Tôbich*.[4] The more a word becomes the possession of the people at large, the greater the change must be if it departs too much from the native form.

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[1] *Origine des plantes cultivées*, Paris 1883, p. 170.

[2] *Ibid.*, p. 165.

[3] *Ibid.*, p. 183.

[4] Even if the word be taken from Latin there is not sufficient ground to assume an importation of the plant from Rome. The horseradish is known throughout Germany as *Meerrettig*, but in some parts of Austria the Slavic form *Kren* has survived. This in itself is not a proof that the plant has been imported from Russia.

[5] It will be noticed that *Feige*, *Dattel*, *Zwiebel* resemble much more the French words *figue*, *datte* (Ital. *dattilo*), *ciboule* than Lat. *ficus*, *dactylus*, *caepulla*. The latter would have given quite different results.

For the change of endings native syllabic combinations must be kept in mind. The MHG. and Mod. HG. *-ig*, *-ich* (*ch* after liquids) is a syllable of least resistance, and foreign *-ic*, *-it*, *-ec*, *-et*, *-ac*, *-at*, *-j*, etc., are liable to take this ending, hence such forms as *Rettig*, *Pfirsich*, *Essig*, *Mönch*, *Kelch*, *Teppich*, *predigen*, *Käfig*.[5]

Unusual combinations may be transformed. The change of *turr* to *Turm* (: *Sturm*, *Wurm*) is such an instance. Frequently all the changes combined are not sufficient to produce the desired result, and then popular etymology comes into play and still further transforms the combination. Such attempts are seen for example in MHG. *pforzich*, which we find as *phorzeich*, *vörzich*, *forzaichen*, *furzog*.

When we deal with loan-words in Modern German, all these facts must be considered. Besides, as is often the case, peculiar dialectic forms may survive, and it is not necessary to resort to the second sound shifting to locate the word. Phonetic studies are not the end of etymological investigation of these words, but merely an assistance in the chronological data of sources. Loan-words must mainly be studied historically, and the second sound shifting must not be juggled with.

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[1] Hence generally the accent is drawn back to the first syllable.

[2] Kluge, *Etymological Dictionary*, sub *Kartoffel*.

[3] Winteler, *op. cit.*, p. 56.

[4] Weinhold, *op. cit.*, p. 85.

[5] Other MHGerman words are *prisilig* for *prisilje* "brasilienholz," *bederich* for *pheteraere* "petraria," *phorzich*, *phorzeich* "porticus."

3.

ECONOMIC HISTORY AND PHILOLOGY.[1]

In dealing with origins the writers of economic and historical subjects are wont to proceed from the data of the philologist, tacitly assuming that the science of words is based on immutable foundations and that they cannot take upon themselves the responsibility of an empiric investigation where etymology has once for all determined the facts by philosophic deductions and mechanical laws. But, by making light of the chronological element and by creating the somewhat arbitrary divisions of families of languages, philology is led to underrate the importance of the great trade routes, the geographic advance of civilization, the constant and endless interaction of custom, tale, and invention, which run counter to the families of languages and know not of individual tongues; and hence it has not furnished the proper material for the history of the economic development and cannot serve as a check on the historic method.

Philological activity has reduced itself to a number of specialized fields which, though useful from the standpoint of mere classification, are contrary to historic facts. We may speak of Germanic, Romance, Classical, Indo-Germanic languages, but these sub-divisions exclude conditions which find no place in the narrowed compass and, on the other hand, accentuate resemblances which are either accidental or have entered from without. There never was a Germanic, or Indo-Germanic, or Romance community or civilization. The historic evolution of Spain is quite different from that of Italy or Roumania, and there never was a time when the linguistic stock of these three was one and undivided. From the very start there were enormous differences, and if we proceed from the common Latin, we no longer have the substratum of Spain, Italy, or Roumania, but only a faint background on which the Iberian and Goth, Roman and Langobard, Dacian and Slav, have independently evolved themselves; and an entirely unrelated language, such as Hungarian, may as much represent the influence of the Roman civilization as does Latin Roumanian.

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[1] *The Quarterly Journal of Economics*, vol. XXV, p. 239 ff.

What has happened within historic times happened in prehistoric. Through the mixture of an original Indo-Germanic language at very different periods with very different linguistic stocks have arisen the many tongues which, by courtesy, we still denominate Indo-Germanic, even as, by discourtesy, an octaroon, who has but one-eighth of negro blood in him, is called a negro. Hence it is absurd to predicate an Indo-Germanic or even a Germanic civilization, any more than one would think of establishing an "Urgeschichte" of Romance. It is only because the former are removed from documentary control that philologists have ventured on voluminous "Prehistoric Histories," while their statements in regard to historic times upon proper investigation as often prove wrong as right.

Philology cannot dissociate itself from the history of civilization in the treatment of the origin of words, for words are carried along roads of communication with the things which they represent, and it is idle to speculate on any prehistoric history until all the roads of communication have been traced and mapped out. These prehistoric histories base their conclusions on the universality of certain words in a linguistic group, but this is no more indicative of the presence of the things represented by these words in the original stock from which the group is derived than the universal use of the word "automobile" is indicative that the aborigines of Europe had invented this machine, just as the absence of a common word for "hand" cannot lead to the conclusion that the Indo-Germanic primitive man had not yet emerged from the quadruped stage.

I will illustrate the topsy-turviness of the philological method, as commonly practiced,[1] by a few words of economic import which have, like all such words, emanated from great trade centers and have travelled along the customary trade routes, with little heed to linguistic affinities. The name of such words is legion, but the few treated here will suffice to indicate the path along which philology must walk, if it is to save itself from inanity, and to accentuate the close union which must subsist between philology and economic history. The two are inseparable wherever they overlap.

Relations with China.

Schrader[2] gives a list of names for "steel" related to Pers. *pūlād;* Syr. *pld;* Kurd. *pila*, *pola*, *pulad;* Pehl. *pōlāwat;* Armen. *polovat;* Turk. *pala;* Russ. *bulat;* Mizdzhegan *polad*, *bolat;* Mongol. *bolot*, *bülàt*, *buriät*. He is unable to suggest an origin for these words. Fr. Müller[3] pointed out that the Pehlevi and Armenian should be *polapat* and suggested Gr. πολύπαταξ "much-beaten" as the original word. A number of mistakes were thus committed. In the first place, it was not right to limit the words to their Indo-Germanic form and, therefore, suggest a Greek root-word. Secondly, πολύπαταξ could not under any conditions be connected with steel, because steel is the result of the carbonization of iron, and the much-beating is later applied to it as much as to copper, iron, gold, etc.; and, chiefly, because there is not a particle of evidence that the Greeks ever used the word as a designation for steel. Thirdly, not all the countries of Asia had been exhausted in search for similar names, and so the possible center of issue was dislocated. For, by adding Tibetan *p'olad*, Sulu *bālan*, Tagalog *patalim*, Ilocano *păslip*, we at once see that the origin of the word may lie further to the east. Naturally one thinks of China as the possible point of issue, for there steel was known in the third millenium before our era and we have the positive reference to steel in a Chinese writer of the fifth century B. C.[1] However, a perusal of the Chinese dictionary fails to furnish the word needed, for *kang* cannot lie at the foundation of *pūlād*. The difficulty is at once removed by inquiring into the chief use of steel in China. We learn that the most important article made from it is the flintsteel, which "every Chinaman, as a true Mongol, always carries with him."[2] Now flintsteel is in Chinese *hwo-liem*, in the Cantonese dialect *fo-lim*, literally "fire-sickle." The ancient pronunciation can only be guessed at. Though given as *ho-liem*, *ha-liem*, *hwo-liem*, the final consonant may have been less sonant and understood by hearers as a *b* or *p*; hence, while this *fo-lim* is rendered in Tagalog as *patalim*, in Sulu as *bālan*, Ilocano gives it as *păslip*.

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[1] The publication of a new periodical, *Wörter und Sachen*, by Meringer, Meyer-Lübke, and others, is a ray of light in a field of darkness.

[2] *Sprachvergleichung und Urgeschichte*, Jena 1883, p. 287.

[3] *Wiener Zeitschrift für die Kunde des Morgenlandes*, vol. V (1891), p. 186.

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[1] L. Beck, *Die Geschichte des Eisens*, Braunschweig 1884, vol. I, p. 294 ff.
[2] *Ibid.*, p. 299.

The variant rendering of the first part is due to the wide, open pronunciation of *fo*.

I have no hesitancy in adding Gr. χάλυψ, χαλύϐδιον "steel" to this group. The assumption, already expressed by the Greeks, that χάλυψ was so called from the Χάλυϐες, the nation near the Pontus, who mined iron and from whom the iron for their steel was obtained, only indicates an attempt to explain the origin of the word, in the light of the fact that their iron was received from the East; or, what is also probable, the name of the Eastern nation from whom they received their iron was so changed as to bring it in harmony with the χάλυψ, which originally was derived from China, even as the Greeks named the Chinese Σῆϱες, from σήϱ "the silk-worm," which is from Chin. *sze* "silk." That the inhabitants of the Philippine Islands and the Mongols should have derived their flintsteel from China is natural enough, and, indeed, life in the Mongolian steppes would have been impossible without this manner of striking fire, which had been in practice in China since the most remote antiquity, because of the absence of firewood. But it does not follow that all the words adduced by Schrader are directly to be derived from the Chinese. The Armenian and Pehlevi *polapat* go back to the ninth century and are older than *pūlād*, or rather *fūlād*, the Persian form, to which most of the derivatives are related. The steel from Khorassan was famous in the Middle Ages, and it is, therefore, possible that the Mongolian and Tibetan words are formed from the Persian; but the Armenian and Pehlevi words, which may go back to an older *folapt*, bear such a striking resemblance to Gr. χαλύϐδιον that it is difficult without more evidence to say whether the Greeks derived the word from the immediate East or vice versa. At the same time Gr. χαλυϐ– in pronunciation so much resembles OChin.

ha-liem that one feels inclined to assign to it a priority. Judgment must here be suspended until the investigation by sinologues may cast some new light on the early relations of China with the West.[1]

Meanwhile I shall attempt to trace a few more commercial products to China. The steelyard and balance had been in use in China milleniums ago, but unfortunately I know of no treatment by modern writers which would explain the use of the various weighing machines mentioned in the Chinese dictionaries. Such a treatise, I am sure, would clear up many complex problems of mediaeval European trade. What I offer here is only tentative, a mere exposition of method, and not a final solution. The Chinese name for the balance is *tëen-ping*, which appears in Annamese *thien-binh*, Japanese *tempin*, *tembin*, Malay and Sulu *timbāng*, Tagalog *timbang;* that is, it is known to the whole extreme East. The Annamese has also the form *can-thang-bang*, generally applied to the steelyard, where *can* is identical with Chin. *kin* "a utensil for determining the weight of a thing," *thang* is Chin. *tăng* "small steelyard for weighing money," *bang* is the same as Chin. *ping* in *tëen-ping*. An older shorter *can-thang* must be assumed by the side of Chin. *le-tăng* "a balance for weighing money," and this is unquestionably the origin of Hindustani *kāntā* "small goldsmith's scale." This Hind. *kāntā* cannot be derived from Arab. *qantār*, on account of the difference in spelling, and Arab., Turk. *qantār* (Gr. καντάρι, Albanian *kandar* "the large steelyard") has apparently arisen from a confusion of the Eastern term with LLat. *centenarius*, Gr. κεντανάριον "a hundredweight."[1] There is in Chinese an older name for the steelyard, the classical *keuen-hăng*, from *keuen* "poise" and *hăng* "the beam placed transversely," and a later one, *heng-ping*, which in the older pronunciation sounded very nearly *keng-pang*. One of these forms is responsible for Pers. *kapān*, whence it was taken into Arab. *qabbān* "steelyard," and Gr. καμπανός "steelyard," which is for the first time mentioned in the fourth century. It thus seems that the oldest dissemination of the word and thing was by the way of Persia, a somewhat later one by the way of India, and a more modern one in the extreme East.

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[1] There is nothing new in the assumption of Greek relations with China. They have been pointed out by A. Gladisch (*Die Hyperboreer und die alten Schinesen*, Leipzig 1866) and Hepke (*Die kulturgeschichtlichen Beziehungen der alten Chinesen und der Hellenen*, in *Verhandlungen der Gesellschaft für Erdkunde zu Berlin*, vol. VI, pp. 171-186), and B. Laufer (*Die Sage von den goldgrabenden Ameisen*, in *T'oung Pao*, série II, vol. IX, pp. 429-452) has shown that the gold-digging ants of Herodotus are not a mere myth, but point to a commercial relation between Greece and the extreme East.

That silk and silk wares were exported from Asia to Europe and that the Chinese traded with the West at least 1000 B. C. are well established facts, and it can be shown that at least one product of the European looms of the twelfth century originated—who knows how far back?—in Central Asia, whither it was at a still earlier date brought from China. In the Middle Ages there was known in Europe a cloth *tiretaine*, which with the *burel* and *burnet* belonged to the most popular products of West-European manufacture. Let us see what information one can gain on the matter from the most approved and scientific dictionaries. Hatzfeld and Darmesteter, in their French Dictionary, inform us that it seems to be derived from Fr. *tirer* "to pull," and that it was a kind of cloth, half linen, half cotton. Monlau[1] thinks Span. *tiritaña* is older than Fr. *tiretaine* and that it is derived from the verb *tiritar* "to tremble with cold," on account of the rustling sound which it makes, or from Eng. *tartan*. These are the kind of etymologies that my janitor indulged in when he looked at the radiator and called it a "ready heater." We turn to the *Oxford English Dictionary*, the great repository of quotations and etymological blunders, and find under *tartan:* "It has been conjectured to a. F. *tiretaine* (1247 in Godef. *Compl.*) 'a kind of cloth, half wool, half linen or cotton,' for which a variant *tertaine* is quoted by Godefroy of date 1487. . . Another conjecture would identify the cloth with that called *tartar* or *tartarin*, of which the 16th c. forms *tartarne*, *tarterne*, somewhat approach *tartane*. But the quotations for *tartar* and *tartarin* point to a richer and more costly stuff." Under *tartar* we read: "OF. *tartare*, *tartaire* (c. 1300 in Godefroy), Med. L. *tartarium*, *tartareus* (pannus) 'cloth of Tartary,' a rich kind of cloth, probably silk, used in 15th and 16th centuries. . . *tartariums*, Colonel Yule believes, were so called 'not because they were made in Tartary, but because they were brought from China through the Tartar dominions.'"

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[1] There are other Arabic words which are ultimately derived from Chinese. One of the most important Arabic words introduced into mediaeval trade is *samsar* "broker," generally known in the Italicized form *sensal*. It has been pointed out that this Arabic word is originally Persian, but it cannot be explained from any Persian root-word. Besides, we have no record of any advanced commercial enterprise originating in Persia, which only acted as an intermediary between the East and West. This Pers. *samsar* is nothing but Chin. *chingchi* "broker," from *ching* (*king*) "a person through whose hands an affair passes" and *chi* (*ki*) "to record." The Arabs began to trade with China in the beginning of the seventh century (A. von Kremer, *Culturgeschichte des Orients unter den Chalifen*, Wien 1877, vol. II, p. 280), hence it is not unlikely that many Arabic words of Chinese origin were directly derived from China. On the relations between the Arabs and the Chinese, see E. Bretschneider, *On the Knowledge Possessed by the Ancient Chinese of the Arabs and Arabian Colonies, and other Western Countries Mentioned in Chinese Books*, London 1871.

Absolutely no conception can be formed of what the mysterious cloth was, where it came from, or of what economic import it may have been. We seek for information in Francisque-Michel,[2] but with little more success. To judge from the quotations given by him, *tartare* or *tartaine*, *tartara*, *tartariscus*, etc., was some kind of striped material, of which silk was the main ingredient, and which was sometimes worked with gold, and he did not hesitate to announce that *tartare* may have been applied in the European factories to an inferior article, on account of the sensation produced by the silk product.[1] Francisque-Michel almost guessed correctly, and had he proceeded to expand his investigations to the whole of Europe, he undoubtedly would have ascertained the true state of affairs. The exclusive treatment of a word as French or Spanish cannot lead to the truth, and even the history of the thing can lead to no results so long as the historian is satisfied with the philologist's method of drawing his conclusions chiefly from literary references. The fact is reversed. Only after a word has had its run in the mercantile, industrial, and civic life does it enter literature, and the treatment of the same by poets and historians reflects only what it was thought to be at the period of such mention, not what it originally was or even continued to be in every-day use. To ascertain the origin and meaning of *tiretaine* and its possible relation to *tartan*, *tarletan*, *tartarin*, we must first of all discover from a vast number of references what the underlying chief connotation of *tiretaine* was. Only then shall we be entitled to philological and economic assumptions. For purpose of geographical convenience I shall proceed from the west to the east.

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[1] *Diccionario etimológico de la lengua castellana*, Madrid 1881.

[2] *Recherches sur le commerce, la fabrication et l'usage des étoffes de soie, d'or et d'argent, et autres tissus précieux*, Paris 1854, vol.II.

In Portugal *tiritana* or *tricana* is a coarse woolen overcoat worn by peasants of Coimbra, but some give it as a kind of petticoat, also a countrywoman; whereas in Spain *tiritaña*, *tiritaina* is a kind of silk, but *tiritaina* also means "a thing of little value." Cotgrave says of Fr. *tiretaine* "linsie-woolsie, or a kind thereof, worne ordinarily by the French peasants." In 1253 there is mention of a manufacturer of *tiretaines* as

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[1] *Ibid.*, p. 167 ff.

tiretier.[1] It is generally mentioned together with *galebrun,*[2] of which it was some kind of variety. In the Vaudois country *tredaina* is a coarse cloth made of native wool,[3] in Geneva it is *tredaina*, *trépelanna*, and at Lausanne *tredon*, *tredan* means "noise, tumult." In the Languedoc we find *tirintin*, throughout the Provence *tirantèino*, *tirlantèino*, *tirlintèino*, *tirangèino*, *tinteino*, *tiratagno* in the sense of *tiretaine* or cloth of a poor quality, *tarlatano*, *tarlantano* "tarlatan, cloth of poor quality," *tridagno*, *tridaino*, *tridèino* "cloth of poor quality, rags."[4] In Italy, *mezzalana* "any woolsie, or linsie-woolsie stuffe, half wool and silke, or linnen,"[5] seems exactly to correspond to our *tiretaine*, and the term seems to have taken the place, as a popular and correct rendering, of what was called *tuttalana*. This *tuttalana*,[6] sometimes called *tuttalana bassetta*, was no more of pure wool than some of our "all-wool" products, and is in all probability a corruption of some such word as *turtuna*, even as *tredaina* has in Geneva been corrupted into *trépelanna*, as *tiritana* has in Portugal been changed into *tricana*, and, as I suspect, Fr. *tricot*, for the first time mentioned by Cotgrave as a term at Orleans, is but a corruption of the same *tiretaine*. To this aspect of the word I hope to return at some future time.

In Holland *tiereteyn*, *dierteyn* is given as an equivalent for burel.[7] In High German it is recorded from the fifteenth century on as *dirdenday*, *diradey*, *dirledey*,

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[1] "Et se *tiretier* tissoit *tiretaine* ki ne fust boine et loials et ri n'eust deux aunes de largece en ros." (Bans des tiretaines, de 1253), in Jaubert, *Glossaire du Centre de la France*, Paris 1864, sub *tiretier*.

[2] Lespinasse and Bonnardot, *Le livre des métiers d'Étienne Boileau*, in *Les métiers et corporations de la ville de Paris*, Paris 1879, p. 274.

[3] D. Bridel, *Glossaire du patois de la Suisse romande*, Lausanne 1866.

[4] Mistral, *Dictionnaire provençal-français*.

[5] Florio, *Queen Anna's New World of Words*, London 1611.

[6] "15 brachia *tuctalani* Florent. coloris Persi," R. Davidsohn, *Forschungen zur Geschichte von Florenz*, III. Theil, Berlin 1901, p. 73.

[7] "Vestis lino et lana confecta . . burellum," Kilian, *Etymologicum teutonicae linguae*, Traiecti Batavorum 1777.

dirmadey, *dermentey*, *dirdumdey*, *dirtmedey*, *dilmedey* "coarse cloth, half flax, half wool, a mixture of corn and barley, hodge-podge,"[1] but in Lower Germany it is recorded from the fourteenth century on as *tirletei*, *derdendei*, *trittendei*, *tirumtei*, and in Ulm *durendei* is the nickname for an awkward fellow.[2] Amazing is the effect of this word upon the Russian language. It does not seem to be recorded as an appellation for cloth, but has become the foundation for the common designation of "fool" and "bad." The popular forms under which the word for "fool" occurs in Russia show that they owe their origin to the German traders in the north. These popular forms are: *duraley*, *duranday*, *durandas*, *durynda*, *durašman*, *duren'*, and the last is also the common word for "fool" in Polish. Out of these variant forms have arisen the literary words *durak* "fool" and *durnoy* "bad." No other Slavic languages have any derivatives from this stem.

All the above-mentioned words obviously arise from one ground form which must be able to produce the following meanings: (1) striped cloth, (2) linsie-woolsie, and silk, (3) mixture, hodge-podge, racket, nonsense. As the tendency in the manufacture of the Middle Ages usually was towards the deterioration of goods, a striped mixture of silk with some other substance would be the material which would satisfy all the above-mentioned conditions. This we find in Manchu *turtun* "étoffe crêpée,"[3] Mongol *turtum* "a stuff woven from silk and camel hair,"[4] and these are from Chin. *ch'e-tseu*, literally "silk-gauze or silk-hemp."[5] The deterioration to a linsie-woolsie at once connects Port. *tiritana* with Scotch *tartan*, which is the same kind of striped goods, and it will be observed in the costumes of the Middle Ages that peasants are frequently represented in checkered garments. On the other hand, the mixture of silk and wool or silk and hemp accounts for the muslin of poor quality called *tarlatan*. In its capacity of striped silk goods of a better quality it became responsible for the silks striped with gold which are several times mentioned in Francisque-Michel's quotations.

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[1] Schmeller, *Bayerisches Wörterbuch*.

[2] Schiller and Lübben, *Mittelniederdeutsches Wörterbuch*.

[3] Amyot, *Dictionnaire tartare-mantchou françois*, Paris 1789, vol. II, p. 325.

[4] K. Th. Golstunski, *Mongol'sko-russki slovar'*, S. Peterburg 1893, vol. III, p. 165.

[5] For a fuller treatment of *burels* see my article, *Materialien zu einer Geschichte der Kleidung im Mittelalter*, II, in *Revue de linguistique*, vol. XLIV (1911).

We must still account for the presence of an originally Eastern manufacture in the European factories of the thirteenth century or even earlier. *Tiretaine* formed so important a part of Cologne manufacture in the fourteenth century that the manufacturers, called, as in the French of the thirteenth century, *tyrteyer*, maintained a guildhall of their own known as *tirteyhuyss*,[1] and it was, in all probability, produced in Mayence in the twelfth century, to judge from its association with *galebrun*, which certainly was a product of Mayence looms at that time. It was, in the twelfth century, imported into Montpellier under the name of *tiretum* and taxed like *cendatum*.[2] But Mayence must have been in close relations with Turkestan even earlier than the eleventh century, to judge from the large number of Samarkand silver coins of the early part of the tenth century and the many Eastern wares found there by an Arab traveller.[3]

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[1] W. Stein, *Akten zur Geschichte der Verfassung und Verwaltung der Stadt Köln im. 14. und 15. Jahrhundert*, Bonn 1895, vol. II, in the Vocabulary.

[2] "De tireto et cendato, II den.," *Liber instrumentorum memorialium*, Montpellier 1884-86, pp. 408 and 438.

[3] Ch. M. Fraehn, *Beleuchtung der merkwürdigen Notiz eines Arabers aus dem XI. Jahrhundert über die Stadt Maynz*, in *Mémoires de l'académie impériale des sciences de Saint-Pétersbourg*, VI. série, *Sciences politiques, histoire et philologie*, vol. II, p. 87 ff.

Garbo Wool.

"In antiquarian and topographic works on the history of Florence," says Doren,[1] "and in general philological discussions the word *garbo* has played an important part, especially in the Florentine literature of the sixteenth century: a mass of sagacity and learning, but also much fancifulness and arbitrary commenting has been wasted on its explanation and on its vicissitudes. Like a red thread there passes the same error through all these expositions, and this error is closely connected with the history of our industry. . . . If one goes back far enough, *garbo* is the Italian designation for the Sultanate Algarve in the west of modern Portugal, from which, *as we saw before*, the finest of cloths, manufactured by the Arabs, was in early times imported to Italy: a small street even then received its name from the sale of this cloth, and a family was named *del Garbo* from this street or, perhaps, because it chiefly busied itself with the importation of these stuffs. Finally, the name *Algarve* clearly is derived from Arab. *garbi* 'western,' since that Sultanate designated the extreme west of all the Arabian realms of the Mediterranean."

That "as we saw before" is not based on any historic proof, but only on a reference to Davidsohn.[2] If we now turn to Davidsohn,[3] we find the following: "How extensive the Florentine trade with Algarvia cloth was in the beginning of the thirteenth century is evidenced by the fact that the street where it was located was called the *Garbo* even then, it having preserved the name until recent times, and that among the customers of a banker, of whose ledgers of the year 1211 chance has saved for us a few pages, no branch of business is more frequently mentioned than that of the merchants of the *Garbo*." Thus we move in a vicious circle: "The cloth came from Algarve, consequently it was called de *Garbo*," and "the wool was called de *Garbo*, consequently it came from Algarve." The confusion is increased by Schulte,[1] who identifies *Garbo* with *barbaresca* and has it come from northwest Africa. Thereupon Davidsohn took Doren's part[2] and tried to prove that *Garb* originally referred to southern Portugal, and Schaube[3] thought he had settled the whole matter by pointing out the highly developed cloth industry of the Mussulmans in northern Africa. Thus philologists and historians have gyrated about the zero point without making the slightest advance in any direction. It is the old trick of excluding from consideration such matters as might widen their horizon, on the stereotyped plea that they are foreign to their specialized departments, whereas such specialization is generally suicidal and invariably increases the difficulty of a thorough investigation.

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[1] *Die Florentiner Wollentuchindustrie vom vierzehnten bis zum sechzehnten Jahrhundert*, in *Studien aus der Florentiner Wirtschaftsgeschichte*, Stuttgart 1901, vol. I, p. 65 f.

[2] *Ibid.*, p. 22.

[3] *Geschichte von Florenz*, Berlin 1896, vol. I, p. 793.

The amazing thing is that nowhere outside of Tuscany do we ever hear of *Garbo* wool and *Garbo* cloth, although *Garb*, which the Arabic scholars identify with western Algeria and eastern Morocco,[4] was well known to the Latin peoples, and occasionally was visited by them for commercial purposes.[5] In vain one would look in Portuguese, Spanish, Catalan, Provençal documents for such a mention. Even in Tuscany there is an enormous difference between *Garbo* wool and wool imported from *Garb*. In Siena *lana di garbo* is apparently placed far above all other kinds of wool, whereas in Pisa, in the beginning of the fourteenth century, *lana di garbo* is considered of about the same quality as *francesca* or *francigena*. Doren[1] has shown that under the latter name English wool is to be understood and that, furthermore, the *lana francesca* continued to rise in value, while *garbo* occupied a secondary position. But in the middle of the thirteenth century *garbo* was unquestionably the finest kind of wool or cloth, as is shown by the fact that at Bologna *lana de garbo* alone could be dyed,[2] whereas at a later time English wool shared this privilege to an even higher degree. Doren has pointed out the great confusion that later developed in connection with the term *garbo*, but with that we have no concern here. We wish only to ascertain the original meaning of the expression and to point out the reason for a possible later confusion. In 1315 *lana de garbo* is quoted in relation of 50 to 65, as compared with English wool,[3] whereas in a tariff list of 1307 wool from Garbo is almost the lowest in the list.[4] Whereas a salma of English, Scotch, and Burgundy wool is quoted at 15*s*., and a salma of wool from Catalonia and the Provence at 10*s*., *lane sucide de Tunis, Bugea et Garbo* is given at 2*s*. 6*d*., that is, the proportion is here 10 to 60, as against 50 to 65 before. There is here a contemporary confusion which cannot be explained on any theory of deterioration in the product, a confusion which, as we shall see, was universal along the Mediterranean.

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[1] *Garbo und Florenz*, in *Zeitschrift für die gesamme Staatswissenschaft*, vol. LVIII, p. 39 ff.

[2] *Garbowolle und Garbotuche*, in *Historische Vierteljahrschrift*, vol. VII, p. 385 ff.

[3] *Handelsgeschichte der romanischen Völker des Mittelmeergebiets bis zum Ende der Kreuzzüge*, München and Berlin 1906, p. 780.

[4] Schulte, *op. cit.*, p. 41 f.

[5] "In itinere Cecilie, in bucio nave Sancti Nicholai, et inde ubicumque Deus ei ordinabit, causa negotiandi, in *Garbum* vel in Ispaniam," L. Blancard, *Documents inédits sur le commerce de Marseille au moyen-âge*, Marseille 1884, vol. I, p. 101.

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[1] *Op. cit.*, p. 68.

[2] "Item statuimus quod nulla lana debeat habere tinturam nisi fuerit *lana de garbo* vel etiam varia, et si lana aliqua vel pannum inveniretur que tinta esset et non nuaria vel de garbo auferratur ab eo et comburatur in curia comunis," L. Frati, *Statuti di Bologna dall' anno 1245 all'anno 1267*, Bologna 1869, vol. II, p. 72. What *varia, nuaria* is, is not clear.

[3] "Entschädigung zu zahlen pro qualibet salma *lane lavate de Garbo* 50 fl. aur. et lane Fragigine 65 fl. auri," R. Davidsohn, *Forschungen zur Geschichte von Florenz*, III. Theil, p. 132.

[4] *Ibid.*, p. 102.

In a tariff of Perpignan of 1284 and 1295 we have a reference to "teles *de Garp:*" "teles *del garp*" (*de Garp*), e vintenes, e canabas, e totes autres teles,"[1] while in the *Leudaire de Saverdun* (1327)[2] "*carbe* filat o non filat" follows after *lana* and *li.* In Raynouard's Provençal Dictionary *carbe* = "canabe, hemp," and this exactly suits the sense in the *Leudaire*, for after wool and flax one can think only of a hemp product; consequently the *del Garp* of Perpignan cannot be identical with *carbe* of Saverdun, since after *del Garp* comes *canabes* which is the same as *carbe.* What *vintenes* is I do not know; *vintenas* and *cannabas*, however, occur already in a Marseille tariff of 1228,[3] and in a list of 1190 at Genoa,[4] but instead of being preceded by *teles del Garp*, they are preceded by *telas primas.*[5] Obviously *del Garp* corresponds to *primas* and to English A1, but *tela* can only mean cloth made from flax, hemp, or cotton; consequently *del Garp* was in the thirteenth century in the Provence, as in Tuscany, a commercial expression of excellence, referring, however, not to wool or cloth, but to a textile fabric of either hemp or cotton. Since *tela de Garp* and tela de Rems pay a duty of 1dr., whereas "totes autres teles, o de Campayna, o d'Alamayna, o d'autra terra"[6] pay 2dr., it is reasonable to suppose that *tela de Garp* was a native product and so was favored as against Champagne, German, or other foreign goods.

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[1] *Revue des langues romanes*, vol. IV, p. 371, vol. V, p. 85. The editor, A. Alart, says: "Ce mot ce retrouve encore dans le tarif de 1295, et nous sommes porté à le faire venir de l'arabe *el garb* (le couchant). Il s'agirait donc, dans ce sens, des toiles de l'ouest de la France?"

[2] *Ibid.*, vol. XVI, p. 108.

[3] L. Méry and F. Guindon, *Histoire analytique et chronologique des actes et des délibérations du corps et du conseil de la municipalité de Marseille*, Marseille 1841, vol. I, p. 346.

[4] *Historiae patriae monumenta*, vol. VII, col. 361.

[5] Méry and Guindon, *op. cit.*, p. 345.

[6] *Revue des langues romanes*, vol. IV, p. 372.

In the Statutes of Bologna of the thirteenth century we have a prohibition against the notary's use of paper *de garbo*[1] or *garbitta.*[2] That this is not a prohibition against the use of paper made of cotton fibre is evidenced by another statement of the tariff for paper in a Bologna MS. of the year 1289, where cotton paper is mentioned by the side of *garbexa* paper.[3] Nor is there the slightest reason for the derivation of the word, with Frati, from Lat. *carbasus* "fine linen." *Garbo*, *garbitta*, *garbexa*, *garbesa* represent some North Italian dialectic words meaning "goat, kid," as can be shown by a number of regulations in regard to the use of wool in the manufacture of cloth. In Bologna no one was permitted to mix wool of the ox, goat, ass, or hare with that of the sheep, unless it was to be used in the manufacture of a coarse kind of cloth known as mezzalano.[4] Venice was equally opposed to the use of goat's hair, which is here called *garbeta*[1] and still clearer is the prohibition at Brescia in 1248.[2]

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[1] "Notarii qui presunt statutis pro illo officio habeant bonas cartas pecorinas et non *de garbo* a comuni pro v. statutis scribendis," Frati, *op. cit.*, vol. III, p. 164.

[2] "Et si sum notarius massarii . . in bonis cartis scribam et non in *garbittis*," *ibid.*, vol. I, p. 147.

[3] "De salma cartarum de *Garbexe* et pecudum;—de salma cartarum de banbaxe," *ibid.*, vol. III, p. 663, and repeated in a Florentine tariff of the year 1320: "cartarum *de Garbese* et pecudum, pro salma 4s. Bon., cartarum de bambagia 4s.," Davidsohn, *Forschungen*, III. Theil, p. 146.

[4] "Statuimus et ordinamus quod aliquis de dicta societate non debeat emere . . nec habere, nec tenere in domo pilum bovis vel *capricii* vel asini aut leporis, filatum vel non filatum, tinctum vel non tinctum. . et si filatus vel mistus cum alia lana fuerit, aut de ea laboraverit, vel laborari aut poni fecerit in panno bixello vel agnello, condempnetur, . . . item dicimus quod licitum sit omnibus de dicta societate facientibus pannos *meçalanos* habere et tenere de lanis prohibitis . . . causa ponendi et laborandi in pannis *meçalanis*," A. Gaudenzi, *Statuti delle società del popolo di Bologna,* Roma 1896, vol. II, p. 370 f.

The dialectic words *garbo*, *garbexa*, *garbitta* are in all likelihood adaptations of Provençal or Catalan words, for in Marseille and Barcelona there was a very active commerce in kid skins and fleeces in the beginning of the thirteenth century, and the Prov. *cabritz*, Catal. *cabrits*, *cabrites* at once explain the endings *exa*, *itta* in the Italian words. We read in the Marseille tariff for 1228: "agnel e *cabritz* doni lo pareils—1 obola,"[3] and at Barcelona we often hear of kid skins, of "centum de *cabrites*" (1221) and "bala grossa de *cabrits*."[4] However, the forms *capretto*,[5] *craueto*[6] are also recorded for Italian cities. So, too, the form *garbo* goes back to a Catalan word, which is given in the Latinized form *cabru*, *cabrum*, "tota bestia de lana, o de *cabru*, tota carrega de pells aynines *o cabrum*,"[7] where the *Leuda de Tortosa*[8] and the tariff of Marseilles[9] have *faixs daynines o de cabritz*, *agnel e cabritz*. The fluffy hair of the goat was employed in the manufacture of rugs, and, since it was almost exclusively Catalonia and the Provence that raised goats, we read in the Pisan tariff of Catalan and Provençal *carpitas*.[1] This *carpita*, literally goat's (cloth), is the origin of Eng. *carpet*.[2]

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[1] "Statuimus et ordinamus quod pelliparii artis de agnellinis non audeat miscere agnellinas cum *garbetis*, nec etiam audeat cum dictis agnelinis pelles edorum miscere, nisi tantummodo in listis" (1265), G. Monticolo, *I capitolari delle arti veneziane*, Roma 1905, vol. II^1, p. 108.

[2] "Item statuunt corectores quod pilum bovis vel *capre* non conducatur in civitatem Brixie . . et nullus debeat in civitate vel extra in tota nostra virtute verberare nec texere neque filare neque tingere aut aliquo modo in panno ponere vel poni facere. . Item addunt correctores quod nequis audeat vel presumat ponere vel poni facere lanam grossam *capre* in panno," *HPM.*, vol. XVI, col. 1584 (139).

[3] Méry and Guindon, *op. cit.*, vol. I, p. 348. Also in the *Leuda de Tortosa* (1249), *cabritz*, in *Revue des langues romanes*, vol. IV, p. 254, and at Perpignan (1284), *ibid.*, p. 371.

[4] A. de Capmany y de Montpalau, *Memorias historicas sobre la marina, comercio y artes de la antigua ciudad de Barcelona*, Madrid 1779, vol. II, pp. 6 and 20.

[5] At Chiesa (1327), in *HPM.*, vol. XVII, col. 130; in *Statuta Casalis* (14. cen.), *ibid.*, vol. II, col. 1013; in Bonaini, *Statuti inediti della città di Pisa dal XII al XIV secolo*, Firenze 1857, vol. III, p. 1004.

[6] In *Statuta Casalis*, *op. cit.*, col. 960.

[7] *Leudes de Puigcerda et de la Vall de Querol* (1288), in *Revue des langues romanes*, vol. IV, p. 507.

[8] *Ibid.*, p. 254.

[9] Méry and Guindon, *op. cit.*, vol. I, p. 348.

It is, therefore, obvious that in prohibiting the use of *carta de Garbo*, the prohibition was directed against the use of kid or goat parchment. It will now be easy to ascertain what was meant by *lana di Garbo*, *panno di Garbo*. Aeneas Sylvius[3] tells us that in the island of Cyprus a woolen cloth, called zambelotto, our modern camlet, was made from the wool of goats, and Gesner[4] quotes A. Alpagus, called Bellunensis, a translator of Avicenna's works, to the effect that camlet and other delicate stuffs were made from *lana merhazi*, which, in another exposition of Avicenna, is called *mathahaze*. This is Arab. *mar‘izā’*, *mar‘izza* "fine goat-hair beneath the coarser one." Fraenkel[5] thinks that this is from Aramaic *‘amr ‘iza*, literally "lana capri" (which Fraenkel incorrectly translates by "Schaafwolle"), but in Spain *lana de cabras* was translated into Arabic by *guabra*,[6] which is from Arab. *wabar* "soft hair of camels, goats, hares," etc. This *guabra*, which by a strange coincidence sounds very much like the derivatives from Lat. *capra* "goat," like *merhazi*, which by another rare coincidence can hardly be distinguished from *ma‘azi* "de capra," represented the finest wool used in the manufacture of camlets and similar delicate textures. Apparently the Provençals and Catalonians continued to manufacture camlets, and *camelot* or *camellot de lana* even in the fourteenth century was considered far superior to cloth from sheep wool. In a franchise of the year 1277 given by Philippe le Hardi to Italian merchants carrying goods from Montpellier to Nimes, camlets pay double the duty of other cloths.[1] In a Catalan sumptuary law of 1306 camlet is denominated *drap de lana*,[2] and in another similar law for Barcelona, of the year 1330, permission is granted to women to wear garments of *camellot de lana*.[3]

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[1] "De duabus *carpitis* provincialis, de una *carpita* Catalogne," Bonaini, *op. cit.*, p. 114.

[2] Prov. *carp* "fluffy" is, no doubt, derived from it. In the *Regula Templariorum*, cap. 70, we read, "*carpitam* habeat in lecto, qui sacco, culcitra vel coopertorio carebit," (Ducange, sub *carpia*), and in a list of articles for the year 1156 in Genoa, we read of a pillow made of "what is called" carpet-wool, "duos cosinos unus de corre, et alius de *carpita* dicitur *lana*," *HPM.*, vol. VI, col. 310.

[3] *Aeneae Sylvii Piccolominei Senensis . . . Opera*, Basileae 1571, p. 377.

[4] *Conradi Gesneri medici Tigurini, Historiae animalium Lib. I. de quadrupedibus uiuiparis*, Tiguri 1551, vol. I, p. 280.

[5] *Die aramäischen Fremdwörter im Arabischen*, Leiden 1886, p. 41 f.

[6] P. de Lagarde, *Petri Hispani De lingua arabica libri duo*, Gottingae 1883, p. 289.

Merhazi was the Arabic mercantile expression for A1 in the manufacture of cloth and in wool. Now, the goats were in the Middle Ages abhorred in the central and southern countries,[4] though the Provence and Catalonia never stopped raising them. When Bologna, in 1222 or 1232, invited certain strangers to come to that city and establish cloth factories, they were granted immunities from all public duties, but they were requested under no condition to use other wool in the manufacture of cloth than that of the sheep or lamb.[5] But, while the Tuscans prohibited the use of kid parchment, they were unable to oust the expression *de garbo*, a translation of the Arab. *mar'izā'* and *guabra* from the commercial vocabulary; and, as *francigena* became the term even for English wool, so by a popular transformation *de garbo* was made *de Garbo*, "from a distant western land." Whether this *de garbo* represented the fine goat hair, from the Provence and Catalonia surreptitiously used, or a peculiar kind of sheep hair, I am not prepared to say. *Di garbo* became in Italian the equivalent for "especial refinement," hence *uomo di garbo* "a man of fine bearing." On the relation of Eng. *garb* and similar words in the Romance languages I now need no longer dwell—they have nothing whatsoever to do with the commonly accepted derivations. That the manufacture of camlets and hence the use of the fine goat wool in their production was due to Eastern influence is evidenced by the presence in Paris of Saracen carpet makers, that is, of makers of carpets in the Eastern fashion,[1] and Smirke[2] is probably right when he identifies the *ustil turs* of the Winchester Consuetudinary with a Turkish loom. When, however, Italy and other countries pressed the use of sheep wool in the manufacture of their cloths, the old Eastern industrial expressions became unintelligible and were often confused. This has happened with *tiretaine*, of whose vicissitudes from Central Asia to Europe I have dealt before, and to this, no doubt, is due the confusion of *garbo* "wool," that is, fine goat wool, with wool from *Garbo*, a coarse product, which played an insignificant part in the importation of wool.

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[1] A. Germain, *Histoire du commerce de Montpellier*, Montpellier 1861, vol. I, p. 279. There is probably some significance in the fact that at Saint Vaast d'Arras goats were listed in the same category with gold and slaves: "Omnis homo sive liber sive non, si emerit aut vendiderit aurum, vel servum vel ancillam vel *capram*, Theloneum debet," Van Drival, *Cartulaire de l'abbaye de Saint-Vaast d'Arras, rédigé au XII*^{e} *siècle par Guimann*, Arras 1875, p. 172, and similarly on p. 176.

[2] *Revue des langues romanes*, vol. VII, p. 55.

[3] *Coleccion de documentos inéditos del archivo general de la corona de Aragon*, vol. VIII, p. 179.

[4] See my article on Fr. *boucher*, in *Byzantinisches*, in *Zeitschrift für romanische Philologie*, vol. XXXIV, p. 664 ff.

[5] "Statutum est a conscilio comunis bon. quod illi qui venerunt et nunc sunt jn Civitate ista et nunc ad faciendum pannum lane sive pignolatum sint jnmunes a publicis factionibus per XX annos a tempore quo venerunt jn bon. ex causa predicta, quod statutum cepit habere locum M. CC. xxij et factores panni lane teneantur et debeant facere fieri bonum pannum de bona lana et pura torta et proventa de pecudibus et agnis, et de non aliis animalibus," Frati, *op. cit.*, vol. I, p. 494.

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[1] *Le livre des métiers*, p. 102 ff.

[2] *Ancient Consuetudinary of the City of Winchester*, in *The Archaeological Journal*, vol. IX, p. 85.

The English Grocer.

Gross[1] defines the grocer as a wholesale dealer whose dealings probably by the early part of the fifteenth century became limited to grocery as now understood. The *Oxford English Dictionary* assumes a similar development of the word, and relates the two senses by stating that "the company of Grocers, said to have been incorporated in 1344, consisted of *wholesale* dealers in spices and foreign produce; hence probably the later sense 2." Not less confusing is the history of the grocer as understood by Cunningham:[2] "The pepperers had a leading share in nominating the officials who were admitted to the office of weighing *aver-du-pois*, and in 1316 they made ordinances for weighing. Some of the leading men among them appear to have been of Italian origin, and they certainly dealt in spices and other goods which reached England from the south of Europe; in 1315, they united with the spicerers in forming the Grocers' company—a body which exercised a predominating influence on London affairs in the latter part of the fifteenth century. They may have derived their name from the popular complaint against them as *engrossers*, but it seems possible that they assumed it from their wholesale transactions, *en gros*, or even from their dignified office of weighing by the *peso grosso;* they came to have charge both of the King's and the wool beam—the statera and the trone."

The business of the grocer as such is of a purely English origin, but as the word is primarily French, we must first become acquainted with its application in France. In *Le livre des métiers* a *grossier* is mentioned among various workers in iron[1] and once as some kind of carpenter.[2] It stands to reason that neither artisan produced anything at wholesale, which is precluded by the very enumeration of the workers, who are not classed as retail workers as against the *grossier*. The conception of what in the Middle Ages constituted retail and wholesale is so variable among economic historians[3] that it becomes necessary first to establish the exact connotations and uses of these words. The earliest mention known to me of *ad detallium* is of the year 1207,[4] where the older chart, of the year 1199, reads, "eas pacifice vendant *ad destallagium*."[5] At about the same time we get *ad tallium* in the south of France and later in Lucca and Siena.[6] The more common expression in Italy is *ritaglio*, which in England, where *very many commercial terms owe their origin*,

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[1] *The Gild Merchant*, Oxford 1890, vol. I, p. 128.

[2] *The Growth of English Industry and Commerce during the Early and Middle Ages*, Cambridge 1905, vol. I, p. 323 f.

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[1] "Marischax, Greifiers, Hiaumiers, Veilliers, *Grossiers*," p. 38; "Fevre, Marischal, *Grossier* et Greifier et Hiaumiers pueent ovrer de nuiz s'il leur plaist," p. 39; "Fevres, Marissaus, Seruriers, Grayfiers de fier, Veilliers, Heaumiers, *Grossiers*, Couteliers," p. 254.

[2] "Item, ne ne pevent ouvrer li Charpentier *grossier* ne Huchier ne Huissier, de nuiz," p. 87.

[3] See F. Keutgen, *Der Grosshandel im Mittelalter*, in *Hansische Geschichtsblätter*, Jahrgang 1901, Leipzig 1902, p. 67 ff.

[4] "Preterea, predicti cives cum mercaturis suis quecumque fuerint, venientes in domaniis nostris, poterunt eas licite vendere *ad detallium* vel alio modo," A. Giry, *Les établissements de Rouen*, Paris 1885, vol. II, p. 59.

[5] Other early cases of *à détail*: "A cels qui vendent *à détail*, comme cil que achatent por revendre" (1229), J. Garnier, *Chartes de communes et d'affranchissements en Bourgogne*, Dijon 1868, vol. II, p. 29; "Ne puisse estre vendue au gros pour revendre *a détail*" (1307), *Mémoires de la société de l'histoire de Paris et de l'Ile-de-France*, Paris 1876, vol. II, p. 136 f.

[6] "Nec quis extraneus pannos aliquos in hac villa vendere debet *ad tallium*, nisi eos quos ad collum portaverit per villam" (1204), *Consuetudines villae Montispessulani.* in *Layettes du Tresor des chartes*, Paris 1863, vol. I, p. 263; "Panni venduti *a tallio*" (1292), F-L. Polidori, *Statuti senesi scritti in volgare ne' secoli XIII e XIV*, Bologna 1863, vol. I, p. 289, p. 226; "Ne mercatorum utilitas ad extraneos dividatur, decernimus statuentes quod nullus forensis undecumque sit . . possit, audeat vel presumat vendere vel vendi facere per se vel aliam personam, directe vel per obliquum, aliquam mercadantiam videlicet setam, filugellum, sendada, aurum, orpellos vel arginpellos, *ad tallium* vel ad minutum vel minutatim, vel alias mercationes ad minutum vel minutatim, et maxime illas mercationes et merces quas emerit in Civitate Lucana, districtu vel fortia, directe vel per obliquum" (1308), G. Tommasi, *Sommario della storia di Lucca*, in *Archivio storico italiano*, serie prima, vol. X, Firenze 1847, *Documenti*, p. 62.

with the commerce in which they are used, to Italy, and not to France, produced the word *retail.*[1] It is obvious that the expression *ad retaglum* arose in the cloth trade and referred to the sale of pieces cut off from the roll,[2] and the laws quoted show that the foreign traders were jealously kept from the far more profitable and desirable "retailing" of goods, which was the special privilege of the native merchant; hence in Pistoja they opposed a retail cloth dealer to one from France.[3] But in many places the *tagliatori* were identical with the German Gewandschneider, as, for example, in Bergamo[4] and in Chiesa.[5] We find an excellent illustration of the jealously guarded retail trade in a letter of Margaret of Flanders of the year 1268, in which she asserts the rights of the merchants of Hamburg to keep the Flemings out of the retail trade.[6] In Parma foreigners could sell cloth at wholesale or retail at certain fairs,[1] and later this privilege was extended to all goods and for any time, in order to draw the foreign merchants to the city.[2]

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[1] "Nullus de padua vendat drapos novos *ad retaium* in platea comunis" (1239), *Statuti del comune di Padova dal secolo XII all' anno 1285*, Padova 1873, p. 272; "Statuimus quod mercatores teneantur non emere nec emi facere ab aliquo forense qui venderet vel vendi faceret pannos aliquos in Bononia *ad retaglum* . . non obstante quod forenses in feris valeant *retaglare*" (1264-72), A. Gaudenzi, *op. cit.*, vol. II, p. 121; "Fuit capta pars quod nullus de cetero audeat vendere pannos *ad retaglum* in aliqua parte in Veneciis, nisi in stacionibus comunis de subtus ubi venduntur panni *ad retaglum*," G. Monticolo, *op. cit.*, vol. I, p. 187. This latter law was revoked in 1304 (*ibid.*, p. 193.)

[2] "Et ut non vendant vel vendi faciant aut consentiant, per se vel per alium, ullo modo, aliquem, scampulum vel *ritallium* seu cantum alicuius panni," F. Bonaini, *op. cit.*, vol. II, p. 40.

[3] "Tende apotecarum mercatorum pannorum, tam de francia, quam de *ritallio*," L. Zdekauer, *Statutum potestatis comunis pistorii anni 1296*, Mediolani 1888, p 193.

[4] *HPM.*, vol. XVI, col. 2002 ff.

[5] *Ibid.*, vol. XVII, col. 171 f.

[6] "Preterea mercatores nostri Flandrenses apud Hamburg vina afforare non poterint nec ibidem ea vendere per amphoras seu mensuras, nec pannos scindendo eos per ulnas, neque bona alia vendere particulariter per numeratas denariatas, *nisi hoc de civium et mercatorum Hamburgensium processerit voluntate*," L. Gilliodts-van Severen, *Cartulaire de l'ancienne estaple de Bruges*, Bruges 1904, vol. I, p. 53 f.

One would think that the expression *in grosso et minuto* corresponded to our "wholesale and retail," but that would be far from the mark. Leaving out of consideration the meanings for *grossus* such as "big, coarse," *minutus* "small, fine,"[3] we shall confine ourselves to the definition of meanings that can throw a light upon the meaning of *gross* in "grocer." At Brescia, in 1251, long wool was considered a minute mercery, while fine wool and cotton were gross merceries.[4] In a fourteenth century law of Palermo, cheese, meat, wool, flax, hemp, cotton are considered gross goods.[5] In Venice they distinguished between *specie grosse*, which included ginger, cinnamon, pepper, cloves, nutmegs, cassia, sandal-wood, etc., and *specie menude*, such as scammony, rhubarb, manna, aloes, turbith, terebenthina, etc.;[1] and early in the fourteenth century the two kinds could not be sold by the same person,[2] and a similar provision was made at Florence.[3]

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[1] "Et Potestas teneatur operam dare bona fide sine fraude quod Flamenghi et Francigenes veniant in civitatem Parmae, et drapos vendant in grosso et in minuto quomodo voluerint in Parma" (1226), *Statuta communis Parmae digesta anno 1255*, Parmae 1856, p. 61.

[2] "Item omnes mercadanciae, cujuscumque conditionis fuerint, possint duci ad civitatem Parmae, et ibi vendi *in grossum et in minutum* per quamlibet personam volentem vendere, non obstantibus aliquibus capitulis vel Statutis, ut major ubertas et melior numata possit haberi in civitate Parmae," *Statuta communis Parmae ab anno 1266 ad annum circiter 1304*, Parmae 1857, p. 68 f.

[3] "Vendens animal *grossum*, dabit obolum Tolose pro leuda, de porco vel sue pictam, de animalibus *minutis* nihil solvet" (1241), *Ordonnances des Rois de France*, Paris 1811, vol. XV, p. 424; "Quod nullus magister vel filacanipus, de opera *grossa vel de suptile*, audeat conparare, canipum cum restibus occasione ipsum revendendi," Monticolo, *op. cit.*, vol. I, p. 102; "denarios *crossos vel minutos*," Bonaini, *op. cit.*, vol. I, p. 291; "moneta *minuta*. . . . monetam vero *crossam*," *ibid.*, p. 292; "monetam falsam, *minutam vel grossam*," *ibid.*, p. 378.

[4] "Quod mercathendia *minuta* intelligitur comuniter galetum, vel lana grossa, et his similia. Mercathendia *grossa* intelligitur lana subtilis panni, et bambucium, et his similia," *HPM.*, vol. XVI, col. 1584 (109). In the law of 1313 "cuminum" is added among the "minuta mercathendia," *ibid.*, col. 1716.

[5] "Licet omnibus, et singulis Civibus Panhormi ponderare, vendere, et emere caseum, carnes, lanam, linum, canapem, cuttonem, et quaecumque mercimonia *grossa*, ad pondus, quod dicitur quartaronus," A. Todaro, *Constitutiones regni Siciliae*, vol. I^1, Palermo [1887–88], p. 53 f.

In France, too, *en gros* and *à détail* have not the same meaning as "wholesale" and "retail." The *chanevacier* "canvas-seller" paid no customs for cloth sold in his stall or in the King's market at Paris at retail, except the usual stall duties, but had to pay an obole for every piece bought or sold, if it contained more than five ells. To protect the native dealers, the stranger merchants from Normandy could not cut the pieces at all, but had to sell them whole, that is, they were not allowed to sell *à détail* "cut-off pieces," but had to sell *en gros* "in the bulk."[4]

The transition from the idea of bulkiness and detached pieces to that of wholesale and retail is a perfectly natural one, and this change has taken place, now in one trade, now in another, according to its very essence; but it will not be hard to show that even through the fourteenth century the old conception of relative bulk predominated. For this purpose we shall analyze the Ordinance of the Fishmongers at Amiens, which belongs to the second half of that century.[5]

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[1] *Calendar of State Papers and Manuscripts, Relating to English Affairs, Existing in the Archives and Collections of Venice*, London 1864, vol. I, p. CXXXVII ff.

[2] "Salvo quod ille persone que habent bulletam vendendi *ad minutum*, possint vendere res contentas in sua bulleta solumodo et non alias res que pertineant ad speciariam," Monticolo, *op. cit.*, vol. I, p. 168.

[3] "Et quod nullus mercator *crossus* vel alia persona teneat in sua apotheca nec vendat vel vendi faciat piperem *minutum*," *ibid.*, in note.

[4] "Li home forein de Normandie et d'ailleurs, qui ameinent toilles a cheval a Paris pour vendre, il ne pueent ne ne doivent vendre ou marchié de par le Roy *a detail;* et se il le font, il perdent toute la toile qui est *detailliée.* Et ce ont ordené li preud'omme du mestier, pour ce que li Roys i perdoit sa coustume; quar li home forein doivent de chacune toile que il vendent *en gros* obole de coustume, et de tout ce que l'en vent *a detail* ou marchié le Roy l'en ne doit que obole de coustume de toute la journée: par coi li Rois seroit deceu de sa coustume, se li home forain *detailloient,*" *Le livre des métiers*, p. 121.

[5] A. Thierry, *Recueil des monuments inédits de l'histoire du Tiers État*, première série, vol. II, Paris 1853, p. 139 ff.

Strangers who brought fish to Amiens could sell it themselves, either *en gros* or *à détail*, by paying a certain tax for the hire of a stall (art. 1). Fish sent in by outsiders was consigned to the *grossier*, who sold it *en gros* for the stated fee of 2 sous per somme (2). Before anyone else could provide himself with fish, each *grossier* received 2 sommes, and if there was a greater abundance brought in, the surplus was divided out equally among all the *grossiers* (3, 4). There were similar provisions of mutual aid among *grossiers*, in case of scarcity of fish (5). The paniers of fish sold *en gros* were, as to full measure, bought at the risk of the *detail* merchants, or of those who otherwise bought them ("ou par autrez qui acheter les volront") (7). No fish could be kept over to the next day in summer or two days in winter (9-12). There were to be in Amiens 14 sellers of fish *en gros* and no more (18). Similarly there were to be but 24 venders *à détail* (19). The *en gros* price was by the hundred, but the merchant had to sell the fish at the same price by the demicent, the quarteron, or the demi-quarteron (22). There was still a third way of trading, which in the Ordinance is denominated *à loyer*. Apparently the *grossiers* or the importing fishmongers sent out men to sell for them for a stated wage or salary. There is a provision that a taverner, a cook, or any private person could neither buy nor sell *à détail* or *á loyer* (28, 30). A fishmonger, *poissonier*, could sell only 2 paniers a day, unless there was a great abundance in the market (31). Foreigners and *grossiers* could sell their fish *en gros* until the second bell, after which they had to give them *à loyer* to venders who sold them *à détail* (36).

From the above we see that the *grossier* was not a wholesale dealer, but more nearly a commission merchant, whose chief function was the equitable distribution of the fish among venders and others who purchased directly from him. On the other hand, the foreign merchant who brought the fish to Amiens was privileged to sell either *en gros* or *à détail*. Wherever the outsider was restricted to sales *en gros*, he felt it as a distinct discrimination against him, as the advantage to every mediaeval merchant was entirely on the side of the retail trade. In the case of such perishable goods as fish, which at the end of the day had to be thrown away,[1] it was more profitable for the importing fishmonger to dispose of it at once through the intermediary *grossier*. This arrangement proved insufficient, for beginning with art. 28 we have what apparently is a later addition. A second link was added between the importing fishmonger and the retailer, that of the vender selling for the fishmonger or *grossier* for a stated wage. The retailer sold in small quantities or even by the pound, chopping up the fish. At the end of the thirteenth century the fishvender *à détail* was distinctly one who cut up the fish.[2] He merely reached the poorer people, and was more like our modern hawker. That all the fish did not reach the consumer through the retailer is evident from the abnormal relation of the number of retailers to *grossiers*. As each retailer could sell but two paniers[3] a day, and the average amount handled by a *grossier* was two horseloads, three or four *grossiers* would have supplied all the twenty-four venders with fish. Consequently the vast amount of fish on hand with the remaining *grossiers* was either sold by means of the venders *à loyer* or directly to restaurant-keepers, taverners, and hostelries, and many a private person must have avail-ed himself of purchasing by the quarteron or demi-quarteron, that is, by the smaller measures or quantities.

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[1] *Ibid.*, art. 49.

[2] "Chil ki vent porpois *à détail* doit taillier le cras avoec le maigre," Giry, *Histoire de la ville de Saint-Omer et de ses institutions jusqu'au XIVe siècle*, Paris 1877, p. 507.

[3] In Paris a panier held from 50-60 fresh mackerels, according to R. de Lespinasse, *Ordonnances générales; métiers de l'alimentation*, in *Les métiers et corporations de la ville de Paris*, Paris 1886, vol. I, p. 411.

It can be shown from a variety of sources that the *grossier* was frequently dispensed with as an intermediary of trade. Thus Philippe-le-Bel in 1305 provided that the people should be able to purchase their victuals at the same price as offered to the *grossiers.*[1] In *Le rôle de la taille imposée sur les habitants de Paris en 1292*,[2] the *grossiers* are not mentioned at all, obviously because they did not yet form a distinct class, even as they are absent, but for the carpenter and smith *grossiers*, from the *Livre des métiers*. In 1320 we find for the first time *grossier* and *detailleur* fishmongers at Paris,[3] and their exact meaning is ascertainable from an ordinance of the year 1324, where a *grossier* is held to be one who sells in the name of a foreign merchant, while those who sell on their own account, by the hundred, the demicent, the quarteron, or two, three, or four herrings at a time are held to be *detailleurs.*[4] Here *en gros* means the undivided mass, as received in commission from the foreign merchant, and the privilege granted to the *detailleur* to sell by the hundredweight only accentuates the fact that the relation between the two is not the same as that between the wholesaler and the retailer, as we understand it today. When, therefore, a law of Edward II of the year 1311 permits no *grosser* of wine to be taverner and vice versa, the *grosser* is not to be taken as a wholesale merchant, but only as a foreign trader who sold first to all "goodmen," and only later to any one who might wish to buy.[1] We thus find in England the same conditions as regards the conception of what constituted the gross and retail as on the continent, and the law just quoted precludes the assumptions of the economic writers that the *grosser* was at the start a wholesale dealer, and the explanation given as to the origin of the *grocer* falls to the ground.

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[1] "Item nous voulons et ordenons que de toutes denrrées venans a Paris, puis que elles seront afeurées, *tout le commun en puisse avoir par un tel pris comme li grossier les acheteront,*" *ibid.*, p. 198.

[2] H. Géraud, *Paris sous Philippe-le-Bel*, Paris 1837.

[3] "Item que nuls ne puist estre *grossier* et *detailleur* de la meisme marchandise dudit mestier, sus painne de l'amende," De Lespinasse, *Ordonnances générales*, p. 414.

[4] "Item que tous ceus doudit mestier qui vendent ou nom des marcheans forains sont et seront tenus pour *grossiers*, tant seulement, et ceuls qui vendent par cens, par demi cens et par quarterons et par deux trois ou quatre harens, ou nom d'eulz et par euls, sont et seront tenus pour *detailleurs*," *ibid.*, p. 416.

We shall now try constructively to establish the genesis of the English grocer. One of the most frequently recurring sets of laws in Italy in the thirteenth century is that which deals with the manner of weighing goods, and the investigation of this subject alone will demand much time and labor. I shall, therefore, confine myself here to the treatment of the same laws in the North. That they are derived from the Italian laws will appear from philological considerations alone.[2] In 1280 Count Guido of Flanders gave the merchants of Spain and Germany who visited Aardenburg a franchise in which the first reference to precise weighing is found in the North.[3] The demand that the hand be not placed on the weighing side of the scales was in 1303 repeated word for word in a franchise granted to German and other foreign merchants in England by Edward I.[1]

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[1] "Et avant ceo q'il soyent herbergiez, soit chescon tonel, merche al un bout et al autre, du merke du gauge, issint que l'achatour puisse apertement veer la defaute du tonel. Et apres ceo qe les vyns seront herbergez, demoergent en pees par trois jours, issint q'il ne soyent mustrez ne mys a vente dedens les troys jours, s'il ne soit as grantz seignurs et as autres bones gentz, pur lur estor ou pur lur user. Et apres les troys jours vendent as totes gentz qi achatier les vodront et deveront solonc ceo qe anncienement soloyent faire. Et que nul *grossour* de vyn ne soit taverner, ne nul taverner ne soit *grossour*," J. Delpit, *Collection générale des documents français qui se trouvent en Angleterre*, Paris 1847, vol. I, p. 45.

[2] The first mention of just weighing, from which all the later ones are derived, is to be found in the Theodosian Code (Mommsen's ed., p. 722 f.): "nec pondera deprimant nullo examinis libramento servato, nec aequis ac paribus suspenso statere momentis."

[3] "Ke li marchant aient pois de balanches et ke li peseres poise tout en fin et ke il oste ses mains dou pois et ke li marchans u autres fire les balanches de le main en la moienne de la balance, parquoi ele ne voise plus dune part ke dautre, et ke li marchans puet contredire le peseur sans riens mesfaire," K. Höhlbaum, *Hansisches Urkundenbuch*, Halle 1876, vol. I, p. 296.

This was so novel a departure for England that Edward I next year repeated the injunction literally in a letter to the mayor and aldermen of London, insisting that the privilege of equitable weighing be granted to the foreign merchants, or cause be shown why the City of London did not comply with his demand. To this the answer came that from time immemorial it had been the custom to weigh in favor of the purchaser and that the new law would discriminate against the citizens of London.[2] But the King was persistent and a month later repeated the law and called the mayor and aldermen of London to account.[3]

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[1] "Item volumus, ordinamus et statuimus, quod in qualibet villa mercatoria et feria regni nostri predicti et alibi infra potestatem nostram pondus nostrum in certo loco ponatur et ante ponderacionem statera in presencia emptoris et venditoris vacua videatur et quod brachia sint equalia, et extunc ponderator ponderet in equali, et cum stateram posuerit in equali, statim amoveat manus suas, ita quod remaneat in equali, quodque per totum regnum et potestatem nostram unum sit pondus et una mensura et signo standardi nostri signentur," *ibid.*, vol. II, p. 16.

[2] "Modus ponderandi averia ad civitatem Londoniensem venientia, a tempore quo non extat memoria talis extitit et adhuc existit, quod statera trahat versus meliorem, hoc est, versus rem emptam et eodem modo venduntur dicta averia archiepiscopis, episcopis, comitibus, baronibus et aliis quibuscumque in dicta civitate, hujusmodi averia ementibus, et ista consuetudine et modo ponderandi antecessores nostri usi fuerunt et nos hactenus usi sumus ac dominus rex noster libertates et liberas consuetudines nostras, quas ex concessione progenitorum suorum regum Anglie habemus et quibus huc usque usi sumus, nobis per cartam suam confirmaverit, per quod, consuetudines civitatis sue usitatas et approbatas per concessionem extraneis mercatoribus nunc factam in dampnum et prejudicium civium suorum et etiam magnatum nec non communitatis regni sui mutare non possimus nec debemus: presertim, cum in carta eis facta contineatur, quod ponderatio, in forma in dicta carta contenta, fiat ubi contra dominum loci aut libertatem per ipsum dominum regem vel antecessores suos concessam illud non fuerit, sive contra villarum et feriarum consuetudinem hactenus approbatam," Delpit, *op. cit.*, p. 40. A translation of this is to be found in R. R. Sharpe, *Calendar of Letter-Books, Letter-Book C*, London 1901, p. 128.

[3] *Ibid.*

The dispute between the King and the City of London lasted until the year 1309, when an amicable arrangement was made: "Whereas frequently aforetime many and divers contentions used to arise between foreign merchants selling and free merchants (mercatores privatos), buying divers goods of weight (averia ponderis) and spices which used to be weighed as well by the great balance as by the small, inasmuch as there was uncertainty in the draft of weight (super tractu ponderacionis), for that the weigher gave to some more and to some less as was reported; for avoiding and removing which contentions in future it was agreed the day, etc., by Thomas Romayn, the Mayor and the Aldermen, and with the assent of Luke de Haverynge, William de Bydik, Ralph le Balauncer, Peter Adrian, William le Barber, John Godelmynge, Richard de Dorsete, Richard de Spain, citizens and merchants of London, and John le Lung, Hildebrand de Nova Curia, James Fisshe, John Pope, Richard Sware, Bertram de Coloigne, John de Sterneberwe, Henry de Colon', Lambekyn Heved, Roland de Colonia, Henekin atte Nwe, merchants of Almaine, and John de Pitleacre, Francis de Gene, Antonin de Gene, John de Cotesawe, Nicholas de la Spade, Bartholomew Lespicer, John de Perem, Ymbert de Luka, Peter le Rous, and Chonel de Luka, merchants of Lombardy and Provence, that all merchandise of weight (mercandise *averii ponderis*), as of wax, almonds, rices (riseis), copper, tin, and the like, which are weighed by the balance, shall for the future be weighed evenly; that the weigher remove his hands therefrom, so that the weigher when he weighs, in weighing place the balance even and remove his hands therefrom, so that neither to the seller not to the buyer he shall appear to give or take anything but what is fair in any way; and that each hundred of such grosses (*grossis*) of aver de pois (averii ponderis) shall contain 112 pounds, and each hundred of small spices, viz., ginger, saffron, sugar, maces (mazis), and others of the kind which are sold by the pound (per libram), shall contain 104 pounds. And the weigher was enjoined not to weigh otherwise under penalty of imprisonment, etc. And further it was forbidden that any merchant, stranger or free (privatus), should sell or buy otherwise than by the balance, and not by retail (ad detall'), under penalty, etc. Saving always the estate of the lord the King and of his Wardrobe when they wish to weigh that they weigh as before has been accustomed, if they please, until it be ordained otherwise by the King himself and his Council, etc. And this ordinance was made on Monday the eve of St. Martin [11 Nov.], the third year of the reign of King Edward, son of King Edward [A. D. 1309]."[1]

It is clear enough that the grocers were those who sold the *grosses*, as mentioned above, and that, at least popularly, they were so named from the law of 1309. Indeed, the first mention of a grocer is from the year 1310: "John Gut', grosser (*grossarius*) of Sopereslane."[2] Formerly they were called pepperers; now the name of grocers slowly supersedes the older appellation. In 1312 pepperers, corders, iron-mongers, apothecaries, and others are included among those who busy themselves with aver de pois (se intromittunt de averio ponderis.)[3] In 1345 the Mistery of the aver de pois (mester' averii ponderis) apparently included all the above-mentioned ones, though Sharpe speaks of them as pepperers.[4] In 1319 Thomas de Encfeld is called a pepperer,[5] in 1328 he is chosen into the Mistery of

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[1] *Letter-Book D,* p. 209 f.
[2] *Letter-Book B,* p. 250.
[3] *Letter-Book D,* p. 296.
[4] *Letter-Book F,* p. 127.
[5] *Letter-Book E,* p. 116.

Grocers;[1] and in the place of the spicerers we at the same time hear of apothecaries; and again, in 1376, London had a mayor who was a pepperer, and a sheriff, a grocer.[2]

The forestalling of commodities is, of course, older than the origin of the grocers, so, for example, the City of Lincoln in 1315 asked for a remedy against the merchants who bought up fish and other eatables and wares and then sold them to the people at an enormously increased price.[3] In 1363 the same complaint is directed against the merchants called *grocers* because of their *engrossing* all kinds of vendable goods (les Marchantz nomez *Grossers engrossent* toutes maneres de Marchandies vendables),[4] but it is absurd to assume, as has been done by philologists and economists, that the grocers were called so from their engrossing wares. The opposite supposition would have been nearer the truth; but in reality the relation between *grocer* and *engross* is as real as that between "broker" and "break," or "broker" and *broc* "the tap," as has been suggested by the *Oxford English Dictionary*. My task is done as far as the ascertainment of the origin of the word *grocer* is concerned, and the subsequent history of the grocer belongs to economic history proper.[5] But I still have the important problem before me of elucidating the origin of the grocer's trade and of explaining a number of terms connected with it, such as *avoir de pois*, *statera*, *grossum*, for which one would in vain look for proper treatment in dictionaries and economic histories.

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[1] *Ibid.*, p. 232. But all these names should be verified, as it is not clear from Sharpe's use of the words what the original may have been.

[2] *Ibid.*, p. 288.

[3] *Rolls of Parliament*, vol. I, p. 290.

[4] *Ibid.*, vol. II, p. 277.

[5] J. A. Kingdon, in his *Facsimile of First Volume of MS. Archives of the Worshipful Company of Grocers of the City of London*, [London] 1886, part I, p. XIV, completely overlooks the laws of 1303, 1305, and 1309, and so distorts the origin of the grocers.

At the end of the ninth century Leo the Wise of Byzantium published an edict on the corporations of Constantinople,[1] which is a precious relic by which the origins of mediaeval trades may be ascertained. The chapter on the regraters (σαλδαμάριοι)[2] runs as follows: "The regraters shall open shops (ἐργαστήρια)[3] throughout the city, in the streets and villages, so as to make it easy to find those things which are needed for the sustenance of life. Let them sell meat, dried fish, flour, cheese, honey, oil, every kind of vegetables, butter, dry and liquid pitch, resin, hemp, flax, gypsum, vessels, tubs, nails, and all other things which are sold by the steelyard (καμπανοῖς) and not by the balance (ζυγοῖς). They are not permitted to deal in other goods, of the spicerers (μυρεψικὴν), soapchandlers, linendrapers, taverners, or butchers, in any shape or manner. . . If a regrater be caught playing a trick in selling, or increasing the established price, let him be fined ten nomismata. . . The regraters should watch the imported wares, such as appertain to them, so that one not belonging to their corporation who may store them up against a time of scarcity be pointed out to the prefect and punished by him. Regraters should sell their wares at retail (λεπτομερῶς) in such a way as to gain no more than two miliarisia on each nomisma. If, however, upon examination of their weights, it be found that they have gained more, they should be beaten and shaved and forbidden to ply their trade."

The regulation of the spicerers' trade is as follows:[4] "Every spicerer should have his own place, without tricking his neighbor. Let them so treat one another that the goods be not lowered in price or too much divided up by some. Let them not have any regrater's or other vile wares in their shops, for there is no union between ill-smelling and well-smelling things. Let them sell pepper, spikenard, cinnamon, lignaloe, amber, musk, incense, myrrh, balsam, and all other things which pertain to the spicerer's and dyer's trade. . . Let them not accumulate the wares for the sake of making profit in time of dearth, nor immoderately increase the price. Nor may the merchants who import them stay longer than three months, but they must return home as quickly as they have sold their wares.[1] . . None of them is permitted to buy steelyard or regrater's wares(καμπανικὸν ἢ σαλδαμαϱικὸν εἶδος), but only those which are bought by the balance."[2]

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[1] *Le livre du préfet*, publié par J. Nicole, Genève 1893, in *Mémoires de l'Institut national genevois*, vol. XVIII.

[2] *Ibid.*, p. 47 f.

[3] On the relation of this word to *regrater*, see my *Byzantinisches*, I, in *Zeitschrift für romanische Philologie*, vol. XXXIV, p. 651 ff.

[4] *Le livre du préfet*, p. 41.

Species makes its appearance in Late Latin in the sense of "goldware," "clothes," and "spices." In all of these meanings it is the translation of Gr. εἶδος, which is frequently met with in the papyri from the second century on, and in the sense of "spices" it is recorded by Stephanus from Hippocrates, in the fifth century B. C. I suspect that in this latter sense it is an Eastern trade word, either a translation or adaptation of some foreign word, and I tentatively suggest Chin. *weilei*, lit. "the smelling kind, aromatica species," the common word for spices, as the basis for εἶδος. This εἶδος refers in our Byzantine source to the wares of the spicerer as well as the regrater;[1] but, as in the East, so in Byzantium, the first, being precious, were weighed with a more delicate balance, whereas the latter were weighed by the less precise beam of unequal arms, hence the Venetian division of Eastern goods, more particularly spices, into *specie grosse* and *specie menude*, and thus *grossum* came to be identified with the less costly spices and victuals.

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[1] This restriction against the foreign merchant is universal throughout the early Middle Ages, hence the origin of the Hare de drap. Here is one striking case of the end of the thirteenth century in England: "It petunt quod Rex appon' remedium de eo quod alienigene Mercator' dominantur et ditantur de Mercandisis in Civitat' et Cives depauperantur, qui onera sustinent quotiens necesse est: non enim consueverant morar' ultra quadraginta dies, infra quos solebant vendere aliis de regno, qui de lucro vivebant, Et nunc extranei illud lucrum asportaverunt. Rex intend' quod Mercatores extranei sunt ydonei, et util' Magnatibus, et non habet consilium eos expellendi" (1290), *Rolls of Parliament*, vol. I, p. 55.

[2] The chandlers, soapchandlers, and hog merchants also used steelyards.

The name of *aver de pois* applied to such spices and victuals has arisen through a series of translations or, rather, mistranslations. Recent studies on the weights of the Middle Ages[2] contain some serious oversights on account of the misconception of what constituted a *pondus*. While it is quite true that in Carlovingian times a *pondus* became in some way identified with the *libra* "the pound," this was not universally the case. It either preserved the classical meaning of "weight, burden," or more often became identified with the weighing machine and its system of relative weights. When a charter of the year 1185 says, "tres librae cerae ad *parvum Pondus*, vel una ad *magnum Pondus*,"[3] it is obvious that the large and small beams are meant, and that the large beam in this case had its arms in proportion of 1 to 3. So, too, *pondus* means the great beam in "et etiam *pondus* nostrum de Antissiodoro (in perpetuum et gratis donamus)."[4] At Montpellier the lowest weight of the pondus was 8½ lbs., "unum certum *pondus*, ponderans octo libras et dimidiam."[1] The same meaning was given in Sicily to *pondus*,[2] with which cheese, meat, wool, flax, hemp, cotton, and all other *gross* wares were to be weighed. This pondus was there also called *quartaronus*, *quaranteno*,[3] *cantaro*. But the *cantaro* is not, as is generally supposed, identical with the *centenarius*. In Genoa some things were early in the twelfth century weighed by the *cantarius*, and other, apparently grosser goods, by the *centenarius*, or hundredweight.[4] According to a tariff of the year 1204 a threefold distinction is made, for some goods are sold by the *cantarius*, others by the *centenarius*, others again by the pound.[5] In addition, there are also other names for the beam, *rubus*,[6] *spola*,[7] *cristo*,[8] and the French and English *trone*, which need to be investigated. The usual equivalent for *pondus* was *pensum*, so that *averium ponderis*, which is an exact translation of the καμπανικὸν εἶδος of the Edict, is rendered in French as *aver de pois*, Ital. *avere di peso;* that is, what originally meant "the goods of the beam" came to be identified with their manner of weighing. A far more common name for the beam was Lat. *statera*, Ital. *stadera*, from which, no doubt, Middle Eng. *stillere*, *stellere*, Eng. *steelyard*, is derived. Thus, the history of *grocer*, *retail*, *steelyard*[9] shows that the grocer's trade in England is chiefly due to the activity of Italian merchants, and that the Italian grocer's trade itself was derived directly from Byzantium.

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[1] In the Rhodian Law (W. Ashburner, *The Rhodian Sea-Law*, Oxford 1909, p. 35), εἶδος has the meaning of goods transported by a ship; in the *Basilica*, lib. XI, tit. II (ed. Heimbach, vol. I, p. 681), τρόφιμα εἴδη is translated by "species ad victum necessariae."

[2] B. Hilliger, *Studien zu mittelalterlichen Massen und Gewichten*, in *Historische Vierteljahrschrift*, vol. III (1900), p. 161 ff.; P. Guilhiermoz, *Note sur les poids du moyen âge*, in *Bibliothèque de l'école des chartes*, vol. LXVII (1906), p. 161 ff.

[3] Ducange, sub *pondus*.

[4] *Gallia christiana*, vol. IV, *Instrumenta*, col. 102.

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[1] Germain, *op. cit.*, p. 300 (1296).

[2] See above, p. LI, note 1.

[3] G. Rezasco, *Dizionario del linguaggio italiano storico ed amministrativo*, Firenze 1881, sub *cantarata*.

[4] *HPM.*, vol. VII, cols. 71, 72, 513.

[5] "De omnibus mercibus que renduntur ad pensum *cantarii* et *centanarii*, de omnibus mercibus et speciebus que uenduntur ad pensum libre," *ibid.*, col. 521. For various weight values of *cantarius* and *centenarius* see Schaube, *op. cit.*, p. 814 ff.

[6] *Ibid.*, cols. 68, 71, vol. XVI, col. 2001.

[7] *Ibid.*, vol. XVI, col. 2001.

[8] *Ibid.*, vol. VII, col. 202.

[9] See also the history of the apothecary and regrater in my *Byzantinisches.*

4.

In the preceding two articles I have shown that the philological laws do not act uniformly and that the distribution of words in a given area seldom coincides with the philological correlation of the languages of that area. There are no such things as Indo-European roots. The Indo-European languages may have in common certain words, but it is only by excluding all other non-Indo-European languages that they give the appearance of being distinctively Indo-European. There is hardly a root, now accepted to be distinctly Indo-European, that is not found over an enormously larger area, and had the geographical distribution of such roots been considered in its entirety, the Indo-European philology would never have gained that formidable exclusiveness that it now boasts of to the disadvantage of truth. For the present, I shall illustrate the crime of exclusive philology by the treatment of one root, heretofore accepted as exclusively Indo-European in its importance.

In Fick's *Vergleichendes Wörterbuch der Indogermanischen Sprachen*, vol. III, p. 303 ff., a considerable number of words in the Indo-European languages are brought together under an Indo-European root *magh* "large, much, power." But we have Sumerian *ma* "strong, great, numerous," Dravidian (Kannada) *mikku*, *migu* "to grow abundant, excess," Polynesian *maha* "many," *ma* "a word denoting plurality," Nahuatl *miec* "much." It is not only in these languages of Asia and America that the root exists, but in a vast number of other languages of these two continents.

What is more, OIrish *macc* "son," Goth. *magus* "boy, servant," etc., which have been connected with the Indo-European root for "great," is found in Dravidian as *maga* "son." The Dravidian word is not derived from the Indo-European, nor the Indo-European from the Dravidian, but both belong to a much older common source. It is here where the particularistic Indo-European philology has erred irretrievably, by hiding the truth. The presence of a common root in the Indo-European languages no more proves the common origin of the Indo-European languages than the presence of the word "automobile" in a large number of tongues proves their relationship.

Naturally most roots are represented in most languages of the world, and their distribution must be studied geographically, historically, economically, as the case may be, but not in the light of narrow phonetic laws of a particular family, as has been done. This is especially the case with borrowed words, which constitute the majority of words in any given language that is subjected to strong influences of commerce, conquest, or intellectual pursuits. The all-powerful Arabic tongue has injected itself to far more than a half into Hindu, has permeated Malay, Turkish, Maltese, Suahili, Haussa, Berber, Fulah, and Spanish, and it has been my purpose to show that it has entered the Germanic languages through the St. Gall school, where it was studied in connection with the Hebrew Bible glosses. Hence the Germanic languages cannot be studied as such, in cases where the Arabic words have produced an apparent Germanic group, but in the light of the particular Arabic source which created them.

My savage critics, who for the sake of argument are willing to admit such an intrusion, claim that it would have taken at least one hundred years for such an

Arabic influence, whereas it appears that it was already active fifty years after the arrival of the Arabs in Europe, according to my statement. One only wonders where the critics get their one hundred years. Wherever two civilizations come in contact, the stronger, more active civilization affects the weaker instantaneously. Five years is a long period for the intrusion of foreign words, if the conditions are favorable. Unfortunately history seldom records the condition of jargons and mixed languages at the moment of their first meetings. But we can study the phenomenon in a few cases in America, where the conflict can approximately be located chronologically.

In 1850 there were much less than one hundred Bohemians in America.[1] In 1860 their number had risen to probably 25,000.[2] It is safe, therefore, to speak of 1860 as the beginning of a compact Bohemian colony in America. Yet, in 1882 the Bohemians were using more than 250 words of English origin,[3] such as *bárům* (barroom), *batrflaj* (butterfly), *baksna* (box), *brajdl* (bridle), *bučr* (butcher), *dyč* (ditch), *dypo* (depot), *fíluju* (I feel), *fajtuju* (I fight), *fůlovat* (to fool), *hajdra* (hydrant), *kampañ* (campaign), *krizmus* (Christmas), *kerpet* (carpet), *kejk* (cake), *klazet* (closet), *lejk* (lake), *sajn* (sign), *štapuju* (I stop), *sajboch* (sidewalk), *trublovat* (to trouble), *wiska* (whiskey).

This readiness to accept foreign words for objects well known in the native tongue is the more remarkable in the case of the Bohemians, because of the very small percentage of illiteracy among them, and the existence of a Bohemian press from very early times. The case is even more startling with the Yiddish, which in the eighties, that is, in the first decade of the general immigration of Russian and Roumanian Jews in America, so completely changed its aspect on account of the introduction of English words that the literature printed here could not be understood at home. The Yiddish shop signs which one may see in Boston or New York, and which have not changed in substance for thirty or forty years, contain more English words than those of German, Slavic or Hebrew origin.

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[1] E. G. Balch, *Our Slavic Fellow Citizens*, New York 1910, p. 70.

[2] Ibid., p. 70 f.

[3] F. B. Zdrůbek, *Základové českého pravopisu a mluvnice*, Chicago 1882, p. 81 ff.

Still more interesting is the influence of a language upon another, without any immediate contact, merely by the effort of individuals or through literature. One knows how "Happy Hooligan" has produced the Russian *khuligan* "ruffian." Now, some fifteen years ago, Prof. Paul Milyukov, during a stay at my house in America, expressed his admiration for the American and English abbreviations, such as Y. M. C. A., totally unknown and unthinkable at the time in the Russian language. Upon his return to Russia he formed the K. D. T., the Constitutional Democratic Society, and went one better by transforming it into a word, *Kadet*. Since then the abbreviated forms have become a regular institution in Russia, and the Bolsheviks publish a periodical called *Proletkul't*, that is, *Proletarskaya kul'tura*.

The introduction of Latin into the languages of the nations that accepted Christianity from Rome, and of Greek into Coptic, Syriac, and Old Bulgarian, was instantaneous and overwhelming. In these cases it was not a contact of nations, but chiefly the inexperience of the translators, that forced an enormous foreign vocabulary upon languages that in some cases already possessed a literary norm.

What has happened in the near past and in antiquity has happened at all times. It is absurd in the abstract to say that a certain period must pass before a certain amount of borrowing is possible. Each case must be investigated for itself, and no generalization is possible. Whether Arabic has had the influence I claim upon the Germanic languages, cannot be settled by any *a priori* reasoning. It is only my investigation which proves it, and my critics are perverted and absurd when they condemn me on general principles. The difference between my critics and me is this. They know in advance what should be and what should not be, whereas I am mustering facts and deduce the logical consequences. My critics would do well to discuss the facts that I adduce and leave theories alone for the present.

I. THE BUBALUS IN THE BIBLE.

The Latin version of Deut. XIV. 4 and 5 reads: "Hoc est animal quod comedere debetis; bovem, et ovem, et capram, cervum et capream, *bubalum*, *tragelaphum*, pygargum, orygem, camelopardalum." The Septuagint omits *bubalum*, *tragelaphum*, and only the conflate Codex Alexandrinus reads «μόσχον ἐκ βοῶν, καὶ ἀμνὸν ἐκ προβάτων, καὶ χείμαρρον ἐξ αἰγῶν, ἔλαφον, καὶ δορκάδα, καὶ βούβαλον, καὶ τραγέλαφον, καὶ πύλαργον, καὶ ὄρυγα, καὶ καμηλοπάρδαλιν.» This *bubalum*, *tragelaphum* is the translation of Heb. וְיַחְמוּר וְאַקּוֹ, which stands after צְבִי δορκάς. יַחְמוּר again stands after צְבִי δορκάς in 3 Reg. IV. 23, where the Latin version has "excepta venatione cervorum, caprearum atque *bubulorum* et avium altilium," and where the Septuagint reads «ἐκτὸς ἐλάφων καὶ δορκάδων ἐκλεκτῶν σιτευτά,» while the Codex Alexandrinus, after δορκάδων, adds «καὶ ὀρνίθων ἐκλεκτά.» Josephus similarly translates יַחְמוּר of this passage by βούβαλος: «πάρεξ τῶν ἐπ' ἄγρας ἐλάφων λέγω καὶ βουβάλων καὶ τῶν πτηνῶν καὶ ἰχθύων,»[1] while Philo recounts among the eatable animals «μόσχος, ἀμνός, χίμαρος, ἔλαφος, δορκάς, βούβαλος, τραγέλαφος, πύγαργος, ὄρυξ, καμηλοπάρδαλις,»[2] which is identical with the nomenclature of the Codex Alexandrinus.

The Heb. יַחְמוּר was a puzzle even to the Jews, for no definite animal was associated with it, beyond its relation to the deer kind. It is true, a kind of roebuck on Mount Carmel, called *yaḥmūr*, was described by Conder in 1879,[1] but this name is an afterthought, due unquestionably to an interpretation of the Bible passages, and does not teach us anything. On the other hand, the Polychrome Bible not only marks the whole passage in 3 Reg. IV. 23 as of later origin, but specifically mentions ויחמור as being possibly a scribal expansion.[2] The Syrians adopted this word in the form ܝܰܚܡܽܘܪܳܐ *yaḥmūrå*, and the Syrio-Arabic glosses show that no very definite conception of the meaning was had; for we find for it واليحمور وهو الجاموس البري او الايل النامور والنحمور وهو الجاموس البري اخر الكبير من الايـايل او من اليامور and similar readings, from which we learn that the *yaḥmūr* was taken to be in Arabic a *yaḥmūr*, *yāmūr*, *nāmūr*, or *ṭāmur*, (all of these corruptions of the original word, due to a misreading of the undotted ي,) which was supposed to be a wild جاموس *ǵāmūs* or the most powerful of the ايل *'ayal.*

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[1] *Antiquitates iudaicae*, VIII. 2. 4.

[2] *De specialibus legibus*, IV. 105.

The Arab. جاموس is from the Persian. It is already found in the Bundehesh as *gāomēs*, from OPers. *gav* "ox" and a word which is in Sanskrit *mahisha* "the large, powerful (beast), the buffalo." The poet Ru'bah, who died in 762, called the buffalo and the elephant "the dusky ones," لاقهبين *al-aqhabain.* He described himself and his strength as follows:

"A lion who pounds the prey-rending lion,
And the two dusky ones, the elephant and the buffalo."[3]

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[1] F. Hommel, *Die Namen der Säugethiere bei den südsemitischen Völkern*, Leipzig 1879, p. 392.

[2] B. Stade and F. Schwally, *The Books of Kings*, in *The Sacred Books of the Old Testament*, part 9, Leipzig 1904, p. 80.

[3] Ad-Damīrī's *Ḥayāt al-ḥayawān* (*A Zoological Lexicon*), translated from the Arabic by A. S. G. Jayaker, London, Bombay 1906, vol. I, p. 64 f.

Ad-Damīrī says of the buffalo: "It is a very bold and strong animal, but notwithstanding that, the most impatient of God's creatures. It knows the bite of a mosquito and therefore flees from it to the water; the lion is afraid of it; and notwithstanding its great strength and size, it is sagacious, for if the pastor calls out to one of the she-buffaloes, 'O such a one,' the one that is called comes to him. It is a part of its nature to yearn much for its native place, and it is said that it never sleeps at all, owing to its great watchfulness on its own account and that of its young ones. When they all collect together, a circle is formed, and they place their own heads outside the circle and their tails inside it, while the pastors and the young ones lie inside it, so that the circle becomes as it were a city fortified with their horns. The male butts another male with its horns, and if one of them is vanquished, it enters a forest where it remains, until it knows that it is strong enough, when it comes forth, seeks out the stallion which had previously overpowered it, butts it with its horns, vanquishes it, and drives it away. It immerses itself in water mostly as far as its nose."[1] But the Syrio-Arabic glosses also identify the *yaḥmūr* with the ايل "the mountain goat," and thus we are no wiser as to the original meaning of יַחְמוּר.

There can be no doubt that יַחְמוּר has something to do with "red," from the root חמר, and it can be shown that it is due to a gloss to the Gr. δόϱξ or δοϱκάς, which the late annotator of the Bible had before him. The Septuagint was due to Alexandrine scholarship, and here it must have been clear to the later scholars that Gr. δόϱξ was an African animal, and that it was related to Copt. *torš*, *thōrš* "red." Thus the Coptic

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[1] *Ibid.*, p. 399 f.

Bible translates "vacca rufa" of Num. XIX. 2 by *ubahse nterš*. This *torš* is from Egyp. *ţešer* "red, the red calf." The Hebrew annotator correctly rendered this Gr. δοϱκάς by יַחְמוּר, wholly disregarding the fact that צְבִי preceding it had itself been rendered into Greek by δοϱκάς. The annotator went further and added in Deut. XIV. 5 אַקּוֹ, which is unquestionably the Egyp. *aḥ*, Copt. *ahe*, pl. *ahau* "ox," he having had in mind "the red ox," of which he translated only the first part.

The red heifer was sacrificed to the dead among the Jews,[1] but among the Egyptians red cattle were generally slaughtered,[2] apparently because they were considered of evil disposition. It is likely that red cattle were not broken in, but were left to fatten in the pasture, to be used as food. It was not inappropriate, therefore, to add the "red ox" among the eatable animals, since the contempt for them might have made them questionable as good for food.

The Latin translation of יַחְמוּר as *bubalus* is precise, for it refers to the animal raised for slaughter, as may be seen from the use of *bubulus*, *bubalus* in Latin. In 1 Par. XVI. 3 we read "partem assae carnis *bubalae*," while in 2 Reg. VI. 19 we have "et assaturam *bubulae* carnis," which once more shows that *bubalus* and *bubulus* are identical and have the meaning of "beef." But the best proof of the reference of *bubalus* to "ox," is found in Amos VI. 13, where אם יחרוש בבקרים is translated by Aquila «πέτϱα διὰ βοῶν,» where the Septuagint has «εἰ παϱασιωπήσονται ἐν θηλείαις,» while the Vulgate reads "aut arari potest in *bubalis*." Here *bubalus* is the translation of Heb. בָּקָר *bāqār* "ox, cattle."

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[1] H. P. Smith, *Notes on the Red Heifer*, in *Journal of Biblical Literature*, vol. XXVII, p. 153 ff.

[2] H. Brugsch, *Hieroglyphisch-Demotisches Wörterbuch*, Leipzig 1882, vol. VII, p. 1376.

So far we have not a distant reference to a wild ox, nor to a gazelle in *bubalus*, although later this identification is common. This identification was started by the unfortunate explanation given to *bubalus* in Amos VI. 13 by Jerome. The authorized version of the Bible reads intelligently: "For beholde, the Lord commandeth, and hee will smite the great house with breaches, and the little house with clefts. Shall horses runne vpon the rocke? *wil one plow there with oxen?* for ye haue turned iudgement into gall, and the fruite of righteousnesse into hemlocke." Jerome gives his own translation as "numquid currere queunt in petris equi, *aut arari potest in bubalis?*" and explains this as follows: "Scissa enim domus sarciri potest: ruinae non tam instaurationem, quam aedificationem desiderant. Cujus utriusque domus ruinas, scissiones, equis et bubalis comparat, quorum priores in petris currere nequeunt, posteriores tam indomiti sunt, ut jugum cervicibus non recipiant, et cum silvestres boves sint, propter feritatem nolint terram vomere scindere."[1] According to Jerome a *bubalus* is a wild, untamed ox that has not been broken into the yoke, not entirely a gratuitous assumption, since the Heb. יַחְמוּר in the other passages leads to the conclusion that the ox of the pasture, and not of the stall, is meant.

Once this identification of *bubalus* as "bos silvester" was made, which was at the end of the IV. or the beginning of the V. century, the word found its way as an interpolation into older works, and became current as an appellation for the buffalo. This can be shown by a study of all the passages in which the word occurs. In the passage quoted from Josephus βούβαλος is, indeed, the translation of δοϱκάς, but of that word in the Egyptian sense of "red ox, cattle," as justified by the Heb. יַחְמוּר here used, and as is clear from the juxtaposition «βουϐάλων, πετεινῶν καὶ ἰχθύων,» from which ἔλαφος is excluded and where βουϐάλων can only mean "four-footed animal of the chase" or "wild cattle," as opposed to "birds" and "fish." But the question arises whether the latter part, absent both from the Hebrew Bible and the Septuagint, is not a later interpolation, as βούϐαλος and τραγέλαφος may similarly be a later interpolation in Philo, whose nomenclature is painfully identical with that of the Codex Alexandrinus.

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[1] Migne, *P. L.*, vol. XXV, col. 1065.

In the Lausiac History of Palladius there is a passage, possibly genuine, which runs as follows: «μεθ' ἣν ἐφάνη πλῆθος βουϐάλων, ἐξ ὧν ἡ μία ἔστη ἔχουσα μόσχον· εἰσὶ γὰρ πολλαὶ ἐν τοῖς τόποις ἐκείνοις· καὶ ὡς ἔλεγεν ὅτι ἔρρει αὐτῆς τὸ οὖθαρ τοῦ γάλακτος· ὑπεισελθὼν οὖν τῇ βουϐάλῳ καὶ θηλάσας ἠρκέσθη· καὶ ἕως τοῦ κελλίου αὐτοῦ ἦλθεν ἡ βούϐαλος θηλάζουσα αὐτόν, τὸ δὲ μοσχάριον αὐτῆς μὴ δεχομένη».[1] This is translated by Clarke: "After her appeared a herd of antelopes, one of which with a calf stopped—there are many in those regions. And he said that her udder was flowing with milk. So, creeping under her and sucking, he was satisfied. And the antelope went as far as his cell, giving him milk, but not allowing her own calf to suck."[2] The rendering of βούϐαλος as "antelope" is gratuitous. It should have been "cow" or "buffalo." This is proved, beyond a shadow of a doubt, by the Coptic version of the story: "A voice came to me, saying: 'Macarius, get up, go to the she-buffalo, drink some milk, regain your strength, and go back to your cell.' And he went and sucked some milk from its udder, and refreshed himself a little. The buffalo went away, and either she or another came every day to give him some milk. 'And when I was near my cell, about a day's walk away, all the buffaloes ran away and left me.'"[1]

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[1] C. Butler, *The Lausiac History of Palladius*, II, in *Texts and Studies, Contributions to Biblical and Patristic Literature*, vol. VI, No. 2, p. 50 f.

[2] W. K. L. Clarke, *The Lausiac History of Palladius*, London, New York 1918, p. 80.

The word translated by "buffalo" is given in Coptic as *šoš*. This was originally the translation of *bubalus* in Deut. XIV. 5, and was there followed by *tragalafo*, wherefor Zoega was misled into translating it by "oryx",[2] but he later observed that others had rendered it by *bubalus*, and so corrected it himself to *bubalus;* and in the Life of Abbot Paul it is made clear that the grazing cattle were meant, for the passage runs: "Perrexerunt itaque per montem Tèrèb Aegypti superioris, donec venirent ad montem Teròtascjans ab oppido Kòs ad meridiem situm, ubi in valle conspexerunt *bubalos* in quorum medio erat monachus. Hic de nomine et vita a Paulo interrogatus, respondit, vocari se quidem Aphu, degisse autem eo in loco annis LIV, postquam monachus ordinatus fuisset ab abbate Antonio de Scjièt, vitam tolerare eodem cibo quo vescebantur *bubali* quorum utebatur societate, herbis scilicet et oleribus silvestribus, hiberno tempore dormire in medio *bubalorum* halitu eorum calefactum, aestate autem umbra eorum defendi ab ardore solis. In veritate, dixit Paulus, vocaris abbas Aphu *Bubalus*."[3] Indeed, we have many times in the Bible *pe-šōš*, *pe-šos* "shepherd," which makes it plausible that *šoš* "shepherd, bubalus" is derived from the root *šoš*, *šeš* "to scatter." In Isaiah V. 8 the Greek «ζεύγη βοῶν» is rendered in the Basmyric Codex by *šaiš*,[4] while the Memphitic version has *šoš*. This is not only important for the establishment of *bubalus* as "grazing animal, work ox," but also for the proof that Copt. *šoš* "equal" arose from the idea of "yoke ox." So far we have not discovered any justification for the identification of the *bubalus* with a "wild," that is, "savage" animal. At best we have a reference to the cattle of the broad pastures, where they became less sleek and more bony, as admirably represented in Egyptian paintings,[1] sometimes as the object of the chase.

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[1] E. Amélineau, *Histoire des monastères de la Basse-Égypte*, Paris 1894, in *Annales du Musée Guimet*, vol. XXV, p. 235.

[2] *Catalogus codicum copticorum manuscriptorum*, Leipzig 1903, pp. 14, 66, 72.

[3] *Ibid.*, p. 364.

[4] *Ibid.*, p. 147.

In Palaephatus' Περὶ ἀπίστων, a work full of interpolations, a sentence runs, «οὐ γὰρ δυνατὸν, κύνα καὶ πίθηκον, λύκον τε καὶ ὕαιναν, αλλήλοις συμμιγῆναι, οὐδὲ βούϐαλον ἐλάφῳ· ἑτερογενῆ γάρ εἰσι».[2] One editor quite appropriately says to this passage, "haec, et caetera huiusmodi, additamenta redolere videntur ingenium alienum." Indeed, the position of «οὐδὲ βούϐαλον ἐλάφῳ» after «συμμιγῆναι» is distinctly an afterthought, and reflects the Biblical juxtaposition of βούϐαλος and ἔλαφος. In speaking of Arabia and its animals composed of two natures, Diodorus Siculus has a passage in which he says that "there are also the *tragelaphus* and the *bubalus* and other animals of double nature, which it would be too long to describe."[3] This is an obvious interpolation, where the *bubalus* is associated with the *tragelaphus*, as in the Bible. In Dioscorides the βούϐαλος is mentioned by the side of the μόσχος "calf," but the exact meaning is not ascertainable there. However, from the fact that Galen uses βουϐάλιος "wild" (cucumber), it is certain that the *bubalus* was thought of by them as an ox running at large. Similarly, when Leo asked that coats of mail and helmets be made of the hide of the *bubalus*,[1] he had in mind the "ox of the pasture" that would naturally be raised for its meat or hide. The few other references to βούβαλος in Greek admit of no classification, and so there is not one discordant example, from which anything but the idea of "ox running at large" can be postulated for *bubalus*, even as we found the case to be for the Copt. *šoš*.

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[1] J. G. Wilkinson, *Manners and Customs of the Ancient Egyptians*, London 1837, vol. III, p. 18.

[2] J. F. Fischer, *Palaephati De incredibilibus*, Lipsiae 1789, p. 23 f.

[3] II. 51.

We can now turn to the Latin authors in which *bubalus* occurs. Ammianus writes: "Exuberat Aegyptus etiam pecudibus multis, inter quas terrestres sunt et aquatiles. Aliae quae humi et in humoribus uiuunt unde ἀμφίβιοι nominantur. Et in aridis quidem capreoli uescuntur et *bubali* et spinturnicia omni deformitate ridicula, aliaque monstra quae enumerare non refert."[2] The identity of the passage with that in Diodorus Siculus is obvious. The latter speaks of animals of a double nature, and wrongly drags in the *bubalus* and *tragelaphus*, for the first at least is neither a compound word nor a compound animal, and finishes by saying that it is not worth while to talk of these: «γίνονται δὲ καὶ τραγέλαφοι καὶ βούβαλοι, καὶ ἄλλα πλείω γένη δίμορφα ζώων, καὶ τὴν σύνθεσιν ἐκ τῶν πλεῖστον τῇ φύσει κεχωρισμένων ἔχοντα· περὶ ὧν τὰ κατὰ μέρος μακρὸν ἂν εἴη γράφειν»;[3] and Ammianus similarly drags in the *bubalus* and "capreolus" and "spinturnicium" and other monsters, which it is not worth while mentioning. I have already pointed out that Ammianus is a late forgery.[4] This is only one of many passages which confirm the suspicion.

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[1] «Λωρίκια μέχρι ὀστραγάλων, ἀνασυρόμενα διὰ λωρίων καὶ κρικελλίων, μετὰ τῶν θηκαρίων αὐτῶν δερματίνων, καὶ εἰ δυνατὸν πάντα ἁλυσίδετα· εἰ γὰρ μή γε, τινὰ αὐτῶν ἐκ κεράτων, ἢ βουβαλικῶν δερμάτων καταξήρων,» J. Meursius, *Leonis Imp. Tactica; sive De re militari lib* Lugduni Batavorum 1612, V. 4, p. 51.

[2] XXII. 15. 14.

[3] II. 51.

[4] See my *Contributions*, vol. III, pp. 151, 275.

The discussion of Amos VI. 13 by Pseudo-Rufinus, "instar *bubalorum* nunquam videlicet aratris colla subdentium",[1] is based entirely on Jerome and adds nothing to our discussion. Nor is there anything gained from the reference based on Amos VI. 13 in Gregory, "quod autem me dicitis scribere non debuisse, ut in agro Dominico cum *bubalis* arares, quia in ostenso beato Petro linteo et *bubali* et omnes ferae oblatae sunt."[2] In the VI. century we find an imaginary animal "liggium" described as having the color of a dusky *bubalus* or a red heifer, "a quodam animali, quod *liggium* nominatur, habens colorem pulli *bubali* uel buculae rufae,"[3] which only shows that the *bubalus* was something like a red heifer. In Rufinus' *Historia monachorum*, chap. VI, occurs the statement that Theo at night enjoyed the company of the animals of the desert, whom he gave to drink from a well, "hujus autem rei manifestum dabatur indicium, quod vestigia *bubalorum*, caprarumque et onagrorum, circa ejus cellulam plurima deprehendebantur."[4]

Thus we have but one original source for all the *bubali* mentioned before the VIII. century, namely, the Bible. The chief source of secondary references is the Lausiac History, which played such an important part in the dissemination of the hagiography in the West, and through this the *bubalus* was more especially associated with Africa.

[1] Migne, *P. L.*, vol. XXI, col. 1087.
[2] I. 6, in *MGH.*, *Epistolae*, vol. I, p. 8.
[3] Epiphanius, *De XII gemmis rationalis*, in *CSEL.*, vol. XXXV, p. 752.
[4] Migne, *P. L.*, vol. XXI, col. 410.

II. THE BULL OF PAEONIA.

It was only the genealogical propensities of the Arabs which in the VIII. century produced a frenzy of genealogical speculations among the nations of Europe. Therefore the forger Aethicus spoke with authority when he said that the conquest of Francus and Vassus by Romulus had not yet been told by anyone, "de quaestionibus quae alia scriptura non narrat."[1] It is extremely doubtful whether any story of the Franks existed before the VIII. century, and the references in Gregory of Tours to the historians Renatus Profuturus Frigiretus and Sulpicius Alexander, of whom there is no other mention anywhere, sound as doubtful as the whole Troy origin of the Franks.[2]

Fredegar, who equally belongs to the VIII. century,[3] repeats the story of the Trojan descent of the Franks three times, which shows that it was in everybody's mouth in his time. According to one account, the Merovingians had for their eponymous hero Meroveus, who was begotten by a Centaur of the Sea.[4] Another account of the origin of the Franks is as follows: "Exinde origo Francorum fuit. Priamo primo regi habuerunt; postea per historiarum libros scriptum est, qualiter habuerunt regi Friga. Postea partiti sunt in duabus partibus. Una pars perrexit in Macedoniam, vocati sunt Macedonis secundum populum, a quem recepti sunt, et regionem Macedoniae, qui oppremebatur a gentes vicinas, invitati ab ipsis fuerunt, ut eis prae-

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[1] M. D'Avezac, *Éthicus et les ouvrages cosmographiques intitulés de ce nom*, Paris 1852, cap. VII, p. 308 ff. See my *Contributions*, vol. III, pp. 258 ff.

[2] *Historia Francorum*, II. 9.

[3] My *Contributions*, vol. III, p. 254.

[4] *Ibid.*, p. 294.

berent auxilium. Per quos postea cum subiuncti in plurima procreatione crevissent, ex ipso genere Macedonis fortissimi pugnatores effecti sunt; quod in postremum in diebus Phyliphy regis et Alexandri fili sui fama confirmat, illorum fortitudine qualis fuit. Nam et illa alia pars, quae de Frigia progressa est, ab Olexo per fraude decepti, tamen non captivati, nisi exinde eiecti, per multis regionibus pervacantis cum uxores et liberos, electum a se regi Francione nomen, per quem Franci vocantur. In postremum, eo quod fortissimus ipse Francio in bellum fuisse fertur, et multo tempore cum plurimis gentibus pugnam gerens, partem Asiae vastans, in Eurupam dirigens, inter Renum vel Danuvium et mare consedit. Ibique mortuo Francione, cum iam per proelia tanta que gesserat parva ex ipsis manus remanserat, duces ex se constituerunt. Attamen semper alterius dicione negantes, multo post tempore cum ducibus transaegerunt usque ad tempore Ponpegi consolis, qui et cum ipsis demicans seo et cum reliquas gentium nationes, quae in Germania habitabant, totasque dicione subdidit Romanam. Sed continuo Franci cum Saxonibus amicicias inientes, adversus Pompegium revellantis, eiusdem rennuerunt potestatem. Pompegius in Spaniam contra gentes demicans plurimas, moretur. Post haec nulla gens usque in presentem diem Francos potuit superare, qui tamen eos suae dicione potuisset subiugare. Ad ipsum instar et Macedonis, qui ex eadem generatione fuerunt, quamvis gravia bella fuissent adtrite, tamen semper liberi ab externa dominatione vivere conati sunt. Tercia ex eadem origine gentem Torcorum fuisse fama confirmat, ut, cum Franci Asiam pervacantis pluribus proeliis transissent, ingredientis Eurupam, super litore Danuviae fluminis inter Ocianum et Traciam una ex eis ibidem pars resedit. Electum a se utique regem nomen Torquoto, per quod gens Turquorum nomen accepit.

Franci huius aeteneris gressum cum uxores et liberes agebant, nec erat gens, qui eis in proelium potuisset resistere. Sed dum plurima egerunt prodia, quando ad Renum consederunt, dum a Turquoto menuati sunt, parva ex eis manus aderat."[1]

One can trace the origin of the story step by step. The Trojans are supposed to have settled in Macedonia and their bravery was attested in the days of Philip and Alexander. Already Homer refers to the aid given to the Trojans by the Paeonians of Macedonia,[2] and Herodotus declares that the Paeonians were Teucran colonists from Troy.[3] Their "Phrygian" origin led to the King *Friga*, and their "Teucran" origin to another division, the *Torci*, and their King *Torquotus*. But the latter, as well as the reference to *Alexander* and *Philip*, arose from Jerome's *Chronicle*, where we have the following juxtaposition:

1681 *Alexander*, *Philippi* filius, an. 12, menses 6.

1682 Post quem (Arsem) *Darius*, XIV, Arsami filius, an. 6.

1684 Romanor. consul Manlius *Torquatus* filium suum, quod contra imperium in hostem pugnaverat, virgis caesum securi percussit.[4]

This is the reason why *Torquotus* and *Alexander* were dragged in. Herodotus tells of a conversation held between *Darius* and some Paeonian youths as regards their sister.[5] The writer of the Trojan origin of the Franks mistook this Darius for the one in the time of Alexander, and so the Paeonians are made to be brave men in the days of Alexander. This was a welcome discovery for him, since it enabled him to give an eponymous hero to the *Turci*, who by other writers were identified with the *Thuringi*, even as the *Phrygii* were identified with the *Franci*. Thus it was possible to give the *Franci*, that is, the Germans, the same genealogy as the Romans,[1] namely, to have them derived from Troy. This is distinctly mentioned by Fredegar in another place: "Primus rex Latinorum tunc in ipso tempore surrexit, eo quod a Troia fugaciter exierant, et ex ipso genere et Frigas: fuerunt, nisi per ipsa captivitate Troiae et inundatione Assiriorum et eorum persecutione, in duas partes egressi et ipsa civitate et regione. Unum exinde regnum Latinorum ereguntur et alium Frigorum."[2]

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[1] *MGH., Scrip. rer. merov.*, vol. II, p. 45 f.

[2] *Iliad*, II. 848 ff.

[3] V. 13.

[4] Migne, *P. L.*, vol. XXVII, col. 471 ff.

[5] «Ἦν Πίγρης καὶ Μαντύης, ἄνδρες Παίονες, οἳ, ἐπεί τε Δαρεῖος διέβη ἐς τὴν Ἀσίην, αὐτοὶ ἐθέλοντες Παιόνων τυραννεύειν, ἀπικνέονται ἐς Σάρδις, ἅμα ἀγόμενοι ἀδελφεὴν μεγάλην τε καὶ εὐειδέα· φυλάξαντες δὲ Δαρεῖον προκατιζόμενον ἐς τὸ προάστειον τὸ τῶν Λυδῶν ἐποίησαν τοιόνδε. Σκευάσαντες τὴν ἀδελφεὴν ὡς εἶχον ἄριστα ἐπ' ὕδωρ ἔπεμπον, ἄγγος ἐπὶ τῇ κεφαλῇ ἔχουσαν καὶ ἐκ τοῦ βραχίονος ἵππον ἐπέλκουσαν καὶ κλώθουσαν λῖνον· ὡς δὲ παρεξήϊε ἡ γυνὴ, ἐπιμελὲς τῷ Δαρείῳ ἐγένετο· οὔτε γὰρ Περσικὰ ἦν, οὔτε Λύδια τὰ ποιεύμενα ἐκ τῆς γυναικὸς, οὔτε πρὸς τῶν ἐκ τῆς Ἀσίας οὐδαμῶν· ἐπιμελὲς δὲ ὥς οἱ ἐγένετο, τῶν δορυ-

Paeonia was mistaken for *Pannonia*, hence we find in Gregory of Tours the account of the arrival of the Franks from Pannonia and settling in *Thuringia*, where Clodio lived in the castle *Dispargum*.[3] I have

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φόρων τινὰς πέμπει, κελεύων φυλάξαι, ὅ τι χρήσεται τῷ ἵππῳ ἡ γυνή· οἱ μὲν δὴ ὄπισθε εἵποντο· ἡ δὲ ἐπεί τε ἀπίκετο ἐπὶ τὸν ποταμὸν, ἦρσε τὸν ἵππον· ἄρσασα δὲ καὶ τὸ ἄγγος τοῦ ὕδατος ἐμπλησαμένη τὴν αὐτὴν ὁδὸν παρεξήϊε, φέρουσα τὸ ὕδωρ ἐπὶ τῆς κεφαλῆς καὶ ἐπέλκουσα ἐκ τοῦ βραχίονος τὸν ἵππον καὶ στρέφουσα τὸν ἄτρακτον. Θωυμάζων δὲ ὁ Δαρεῖος τά τε ἤκουσε ἐκ τῶν κατασκόπων, καὶ τὰ αὐτὸς ὥρα, ἄγειν αὐτὴν ἐκέλευε ἑαυτῷ ἐς ὄψιν· ὡς δὲ ἤχθη, παρῆσαν, καὶ οἱ ἀδελφεὶ αὐτῆς, οὔ κη πρόσω σκοπιὴν ἔχοντες τούτων· εἰρωτέοντος δὲ τοῦ Δαρείου, ὁποδαπὴ εἴη, ἔφασαν οἱ νεηνίσκοι εἶναι Παίονες, καὶ ἐκείνην εἶναι σφέων ἀδελφεήν· ὁ δ' ἀμείβετο, τίνες δὲ οἱ Παίονες ἄνθρωποί εἰσι καὶ κοῦ γῆς οἰκημένοι, καὶ τί ἐκεῖνοι ἐθέλοντες ἔλθοιεν ἐς Σάρδις· οἱ δὲ οἱ ἔφραζον, ὡς ἔλθοιεν μὲν ἐκείνῳ δώσοντες σφέας αὐτοὺς, εἴη δὲ ἡ Παιονίη ἐπὶ τῷ Στρυμόνι ποταμῷ πεπολισμένη· ὁ δὲ Στρυμὼν οὐ πρόσω τοῦ Ἑλλησπόντου· εἴησαν δὲ Τευκρῶν τῶν ἐκ Τροίης ἄποικοι,» V. 12-13.

[1] See my *Contributions*, vol. III. p. 254.

[2] II. 8.

[3] "Hanc nobis notitiam de Francis memorati historici reliquere, regibus non nominatis. Tradunt enim multi, eosdem de Pannonia fuisse degressus, et primum quidem litora Rheni omnes incoluisse, dehinc, transacto Rheno, Thoringiam transmeasse, ibique iuxta pagus vel civitates regis crinitos super se creavisse de prima et, ut ita dicam, nobiliore suorum familia. Quod postea probatum Chlodovechi victuriae tradedirunt, itaque in sequenti

already shown that *Dispargum* arose from "id est burgi,"[1] and referred to the etymology of *Burgundiones*, who are here identified with the Thuringians. This substitution is brought out by the phrase "Burgundiones quoque," etc., which in Fredegar is even more clearly shown to be a misunderstanding, for here we read: "Substituetur filius eius Chlodeo in regno, utilissimus vir in gente sua, qui apud Esbargium castrum resedebat, quod est in termino Thoringorum. Burgundionis quoque Arrianorum secta utebant, sedentes in Cysalpinis."[2] But the Pannonian, that is, Paeonian origin of the Franks, that is, the Germans in general, led to a specific interest in Paeonia and, what is most characteristic of Paeonia, the large-horned bull. This led at once to Athenaeus, who has a chapter on the horn as a drinking cup:[3] "There is also the horn. It is said that the first men drank out of the horns of oxen; from which circumstance Bacchus often figured with horns on his head, and is moreover called a bull by many of the poets. And at Cyzicus there is a statue of him with a bull's head. But that men drank out of horns (ϰέϱατα) is plain from the fact that to this very day, when men mix water with wine, they say that they ϰεϱᾶσαι (mix it). And the vessel in which the wine is mixed is called ϰϱατὴϱ, from the

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digerimus. Nam et in Consolaribus legimus, Theudomerem regem Francorum, filium Richimeris quondam, et Ascylam, matrem eius, gladio interfectus. Ferunt etiam, tunc Chlogionem utilem ac nobilissimum in gente sua regem fuisse Francorum, qui apud *Dispargum* castrum habitabat, quod est in terminum Thoringorum. In his autem partibus, id est ad meridianam plagam, habitabant Romani usque Ligerem fluvium. Ultra Ligerem vero Gothi dominabantur. Burgundiones quoque, Arrianorum sectam sequentes, habitabant trans Rhodanum, quod adiacit civitate Lugdunense. Chlogio autem, missis exploratoribus ad urbem Camaracum, perlustrata omnia, ipse secutus, Romanus proteret, civitatem adpraehendit, in qua paucum tempus resedens, usque Summanam fluvium occupavit. De huius stirpe quidam Merovechum regem fuisse adserunt, cuius fuit filius Childericus, " II. 9.

[1] See my *Contributions*, vol. III, p. 261 f.

[2] III. 9.

[3] XI. 51.

fact of the water being mingled(συγϰιϱνᾶσϑαι)in it, as if the word were ϰεϱατὴϱ, from the drink being poured εἰς τὸ ϰέϱας (into the horn); and even to this day the fashion of making horns into cups continues; but some people call these cups rhyta. And many of the poets represent the ancients as drinking out of horns. Pindar, speaking of the Centaurs, says:

After those monsters fierce
Learnt the invincible strength of luscious wine;
Then with a sudden fury,
With mighty hands they threw the snow-white milk
Down from the board,
And of their own accord
Drank away their senses in the silver-mounted horns.

And Xenophon, in the seventh book of his Anabasis, giving an account of the banquet which was given by the Thracian Seuthes, writes thus: 'But when Xenophon, with his companions, arrived at Seuthes's palace, first of all they embraced one another, and then, according to the Thracian fashion, they were presented with horns of wine.' And in his sixth book he says, when he is speaking of the Paphlagonians, 'And they supped lying on couches made of leaves, and they drank out of cups made of horn.' And Aeschylus, in his Perrhaebi, represents the Perrhaebi as using horns for cups, in the following lines:

With silver-mounted horns,
Fitted with mouthpieces of rich-wrought gold.

And Sophocles, in his Pandora, says:

And when a man has drain'd the golden cup,
She, pressing it beneath her tender arm,
Returns it to him full.

And Hermippus, in his Fates, says:

> Do you now know the thing you ought to do?
> Give not that cup to me; but from this horn
> Give me but once more now to drink a draught.

And Lycurgus the orator, in his Oration against Demades, says that Philip the king pledged those men whom he loved in a horn. And Theopompus, in the second book of his history of the Affairs and Actions of Philip, says that *the kings of the Paeonians, as the oxen in their countries have enormous horns, so large as to contain three or four choes of wine, make drinking-cups of them, covering over the brims with silver or with gold.* And Philoxenus of Cythera, in his poem entitled The Supper, says:

> He then the sacred drink of nectar quaff'd
> From the gold-mounted brims of th' ample horns,
> And then they all did drink awhile.

And the Athenians made also silver goblets in the shape of horns, and drank out of them. And one may ascertain that by seeing the articles mentioned in writing among the list of confiscated goods on the pillar which lies in the Acropolis, which contains the sacred offerings—'There is also a silver horn drinking-cup, very solid.'"[1]

The *Anthologia graeca* has a poem by the Macedonian Addaeus, possibly a contemporary of King Philip, on the Paeonian bull, which runs as follows: "Valiant Peucestes encountered on horseback the bull as it issued from the dreadful dell of Doberus. Like a mountain it rushed at him, but with his Paeonian spear he pierced its tender temples, and having despoiled its head of the pair of horns, ever as he quaffs the wine from them boasts of his enemy's death."[1]

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[1] C. D. Yonge, *The Deipnosophists or Banquet of the Learned of Athenaeus*, London 1854, vol. II, p. 758 ff.

As a χοῦς amounts to about three quarts, the horns of the Paeonian bull held from twelve to sixteen quarts. This makes it certain, beyond a shadow of a doubt, that the Paeonian bull was either the bos primogenitus of the zoologists or closely related to it, and could not have been the bison, since a horn of a bison would not hold even one quart of liquid measure. This raises the question whether the bison was at all known in Western Europe, more especially in Germany, in the period between Caesar's expeditions and modern times. It can be shown that we have not a particle of proof as to the presence of the bison in historic times anywhere but in the forests of Russia, where it was to be found at least until the Great War.

Of course, in prehistoric times the European bison, which is closely related to the American bison, must have ranged over a much greater territory, and may have been known all over Europe and Northern Asia. But the presence of the bison in the west is documentarily based on a vicious circle. All authorities point to Caesar and Pliny and other authors in confirmation of the assumption that the bison was well known, at least to the natives. It will be shown, however, that all the passages quoted are VIII. century interpolations or forgeries, and, besides, do not refer to the actual bison, but to any wild species of the ox, and include the *bubalus* and *urus*, the latter itself a ghost word of no definite connotation.

[1] «Ταύρῳ φρικαλέον νάπος ἐκβαίνοντι Δοβήρου
Πευκέστης ἵππῳ καρτερὸς ἠντίασεν·
ἀλλ' ὁ μέν ὡρμήθη πρηὼν ἅτε· τοῦ δ' ἁπαλοῖο
Παιονίδα λόγχην ἧκε διὰ κροτάφου·
συλήσας κεφαλῆς δὲ διπλοῦν κέρας, αἰὲν ἐκείνῳ
ζωροποτῶν ἐχθροῦ κόμπον ἔχει θανάτου,»
The Greek Anthology, with an English translation by W. R. Paton, London, New York 1917, vol. III, p. 160 ff.

III. BUFFALO HIDES.

The title of the poem on the Paeonian Bull in the Anthology reads «Εἰς Πευκέστην, ταῦρον τὸν καλούμενον ζόμβρον λογχεύσαντα,» where ζόμβρος is identified with the Paeonian Bull, although it apparently refers to the bison, as may be judged from Lith. *žebris*, *stumbras*, Lett. *zumbrs*, *stumbrs*, OBulg. *zabrŭ*, Ruman. *zîmbru*, Pruss. *wissambris*. Pruss. *wissambris* is formed as though from *wiss* "all" and *sambris*, but is, in reality, due to analogy with Ger. *Wisent*. The Slavic words are unquestionably formed from Gr. ζόμβρος, for which we have a definite date in the IX. century. In the margin of the *Philocalia* of Origen, where the latter mentions the τραγέλαφος, a scholiast of the IX. century[1] wrote: "But we once saw a τραγέλαφος, which came from Thrace to Caesar Barda's house, which they called ζόμβρος and had the face of a deer and the beard of a goat, and was of yellow color and of the size of an ox."[2] But this seems more like the description of the elk, with which the τραγέλαφος was finally identified. The scholiast would certainly not have said that the bison has the face of a deer. We shall now establish the history of ζόμβρος.

We have Chald. סַנְוַארְתָּא *sanwarṭā*, Syr. ܣܢܘܪܬܐ ܣܢܘܪܐ *sanūrâ*, *sanwarṭâ* "a covering of the head, periwig, helmet," which is represented in Arab. سنور *sanawwar* "leather coat of mail," ultimately "any kind of coat of mail."[3] There can be little doubt that we have here a development of Gr. ζωνάριον "girdle," which produces Talm. יסִנָר *sīnār* "a female garment used as a girdle of chastity." The Arabs used سنور *sanawwar* as a term for the particular kind of protective armor which they apparently brought from Russia, where they could obtain that kind of coats of mail which Leo said should be made from buffalo hides, «ἐκ βουβαλίνων δερμάτων.» Thus it produced Gr. ζόμβρος, which ultimately was applied to the bison of the north, producing the Slavic forms quoted. Whatever the native name of the bison may have been, we have it recorded in the Slavic languages only as some form derived from Gr. ζόμβρος or ταῦρος, for we find also Russ. *tur*.

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[1] J. A. Robinson, *The Philocalia of Origen*, Cambridge 1893, p. XV.

[2] Stephanus, *Thesaurus graecae linguae*, sub τραγέλαφος.

[3] F. W. Schwarzlose, *Die Waffen der alten Araber aus ihren Dichtern dargestellt*, Leipzig 1886.

The Arabs derived some of their protective armor from Tatar sources. This is shown by the development from the Tatar word for "protective garment" which lies at its foundation.

Vámbéry[1] has a root *tur*, *tor*, *tür*, *tör* "in front, above," of which some words are of especial interest to us. He gives Uig. *tör* "at the head, place of honor," *töre* "prince, coat of mail," Čag. *tür*, *tör* "in front, place of honor," *töre* "prince, coat of mail." This group at once explains a group of words in the Semitic language, which is obviously of foreign origin, since it is lacking in Assyrian, and has an exceptional development in the other languages.

Heb. זְרוֹעַ *zĕrōʻa* "arm, forearm, might, power, protection" has not successfully been related to any Semitic root. It is found, with the same meaning, in Syr. ܕܪܥܐ *drå̊ʻå̊* and Eth. *măzrāʻe*. It is not found in Assyrian, except as a Canaanism in *zurūʼu* "arm," and has developed a variety of meanings in Arabic.

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[1] *Etymologisches Wörterbuch der Turko-Tatarischen Sprachen*, Leipzig 1878, p. 184 f.

Here we have درع *ḍir'* "a coat of mail, a coat of defence of any kind, plate-armor" and ذرع *dzar'* "the stretching forth the arm or fore leg, power, ability," ذراع *dzirā'* "the part from the elbow to the extremities of the fingers, fore arm," ذارع *dzāri'* "a small skin which is stripped off from the part next to the arm." The relation of this exotic group in the Semitic languages to the Tatar group meaning "in front, surface" is plain, whether the Semitic borrowed the word from the Tatar, or both from a third language. The Tatars and Mongolians used protective armor made of felt from dimmest antiquity, and it is only natural for words referring to such garments to come from the north, the home of the felt productions.

In Persian we find a derivative of Tat. *töre* in the form *targ* "helmet." That this word is old is proved by a gloss in the Midrash Tehillim, where Heb. מגן "shield" is given as *targa* in Persian.[1] This is the origin of Arab. درقة *ḍaraqah* "a shield made of the skins of beasts found in the country of the Abyssinians, of the skin of the hippopotamus and other pachydermous animals" and Gr. θώραξ "coat of mail." Arab. درقة produced the *tarca* "shield" words in the European languages, such as OFr. *targe*, Span. *adarga*, MHG. *tartsche*, Pol. *tarcza*, etc.

For our immediate purpose it would be sufficient to rest here with the history of the protective armor; but the older evolution of the northern "in front, surface" words, more specifically, the "skin" words, is replete with philological suggestions and ultimately throws a light upon the influence of the buffalo skin upon the early civilizations, and so I am constrained to give it here.

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[1] S. Fraenkel, *op. cit.*, p. 241.

In Sanskrit we have a very old *carma*, *carman* "skin, hide, shield," which is represented in Avestan *čareman*, Osset. *car*, *carm*, Afg. *carman*, Kurd *čarm*. This has been tentatively related to the Sanskrit root *car* "to graze, wander, stir, walk, go," which is preserved in Armen. *čarak* "pasture," Osset. *carun* "to live, dwell," Bel. *čarag* "to wander, graze, ride." The same root meaning "leather protection" is widely diffused. We have Assyr. *siriam* (with the denominative *su* "leather"), Babil. *širiam*, Heb. שִׁרְיוֹן *širyōn*, סִרְיוֹן *siryōn*, Syr. ܫܶܪܝܳܢܳܐ *šeryånå*, Egyp. *d̲arana*, *t̲arayna*, *t̲uïrana* "coat of mail."[1] The latter has survived in Copt. *tharmi* "leather shield." There can be little doubt that the leather protective weapon reached the Semitic countries from somewhere further East and that the Sanskrit root *car*, which stands alone in the Indo-European languages, is of foreign origin. The shorter Heb. שִׁרְיָא *širyā* "coat of mail," שֹׁר *šōr*, Syr. ܫܶܪܳܐ *šerå*, Arab. سر *surr* "navelstring," Heb. שָׁרִיר *šārīr* "muscles," are obviously related to this group, but none of these have anything in their respective languages to make fast to.

We begin to get a little light on the subject when we include into our group Assyr. *šāru* "to wander, roam about, traverse," because here we have Sansk. *car* represented by *šāru*. This is found in the Hebrew as שׁוּר *šūr* "to wander about," which is to be recognized in Arab. سار *sārā* "he passed away, journeyed, marched," hence سيرة *sairah* "march, departure." But the Palmyrene שירטא *širta* "caravan," which is very old and points to a caravan relation between Palmyra and

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[1] W. M. Müller, *Asien und Europa nach altägyptischen Denkmälern*, Leipzig 1893, p. 102 f.

Arabia in dim antiquity,[1] shows that the Sansk. *car*, Assyr. *šāru*, Heb. *šūr*, Arab. *šāra*, which are unique forms and due to borrowing, have all something to do with a caravan route which connected the East with the West and South.

It was the use of the ox-skin for packing which made the transportation across the continent from the East to the West possible in early times, and the relation of "ox-skin" to "caravan," hence to "to wander" is thus explained. But this is not all. The Tatar languages show that "ox," at least the large-horned ox of northern Asia, is equally derived from the same source. We have over an enormous territory Tat. *šar*, *čar* "steer," and this is by the philologist of the Ugro-Tatar languages related to Mong. and Tat. *syr* "dry tendon."[2] We thus come back once more to "hide, skin." But this *šar*, *čar* at once leads to Assyr. *šuru*, Phenician ϑωϱ, Arab. *ṯavr*, Syr. ܬܘܪܐ *taurå*, Gr. ταῦϱος, Ger. *Stier*.

It would seem that no proof, except the one here offered, could be given of the great importance of the caravan route over Asia in forming words for "ox," "skin," "to wander," but we fortunately have a whole series of much more interesting words, from which the truth can be established beyond a shadow of a doubt. In the above group we have but comparatively late developments of the original meaning, and of local origin, possibly somewhere in Turkestan or to the north of it. But we can trace the whole caravan influence to China.

Chin. 橐 *t'o* "a sack, open at both ends," of which the old pronunciation was *t'ak* or *twak*, to judge from Canton. *t'ok*, Fuchau *tw'ak*, is found in Japanese as

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[1] S. Fraenkel, *op. cit.*, p. 180.

[2] N. F. Katanov, *Opyt izslyedovaniya uryankhayskago yazyka*, Kazan' 1903, p. 133.

tawara "bag," hence a still older *twar* may be safely assumed for it. That this was connected with the caravan trade is readily seen from the compound 橐駝, literally "a bag carrier," "the camel," and there is also an ancient 驝 *t'o* "the camel," from "horse" and "bag;" so that in China the word was closely associated with the caravan trade.

This Chinese word, or more correctly, its predecessor *twar*, is found over an enormous territory. For Sansk. *tvac* "hide, skin, bark" the Sanskrit scholars artificially created a root *tvac* "to cover," in order to explain the puzzling word. Of course, it is the Chin. *twak*, from which, in all probability, it is borrowed directly. The Dravidian languages show conclusively that the still older form *twar* was known to them. We have not only the Kann. *tvakku*, *tokku*, but also Kann. *toval*, *togal*, Tulu *togalu*, *tugalu*, Mala. *toli*, *tōl*, Tam. *tol*, Tel. *tōlu*, Toduva, Toda *tuwarš*, *torra*, Kota *tuval* "skin, hide, leather," all of which go back to *twar* or *towar*.

In the Tatar languages a division has taken place. The fuller form *davar*, *tuvar* means "cattle," while the weaker form *teri*, *deri*, *tearie* means "skin." The latter immediately explains an enormous mass of derivatives in the Indo-European languages. We have Sansk. *dṛiti* "a skin of leather, a leather bag for holding water and other fluids, skin, hide," related to the root *dṛi* "to burst, split open, tear," Gr. δείρω, δέρω "to flay," δέρμα "skin," Lith. *dirti* "to flay," OBulg. *drati* "to tear," etc. By far the most interesting development is that from the first, which originally meant as much "pasture, cattle yard" as "cattle," as may be seen from the universal use of words from this root in the Indo-European, Semitic, as well as Tatar languages. Lat. *foris* "door," *foras* "outside," Goth. *daur* "door," Lith. *dùrys* "door," *dvãras* "yard," OBulg. *dvĭri* "door," *dvorŭ* "yard," Sansk. *dvār* "door," OPers. *duvarayā* "at the court," etc., etc., all prove that the original root *dvar* meant "yard," and here the semantic development is the same as the evolution of Eng. *court* "palace" from LLat. *cortis* "enclosure." We need only trouble ourselves with the meaning "yard, enclosure," and here the Semitic languages throw a light on the subject.

Heb. דֹּבֶר *dober* "pasture," מִדְבָּר *midbār* "pasture, desert" have long been recognized as leading to a root "to drive to pasture," and even דָּבָר *dābār* "speech," דֶּבֶר *deber* "death, destruction" have been derived from this verbal root, *which is not found in Hebrew.* But Syr. ܕܒܰܪ *dbar* "he led to pasture" has a very large number of derivatives, among them ܕܰܒܪܳܐ *dabrå* "field, pasture, desert," ܕܰܒܪܳܝܳܐ *dabråyå* "wild," ܕܒܳܪܬܳܐ *dbårdta* "prey," which show this relation beyond any possibility of doubt. From the idea of "leading" we get Arab. دبر *ḍabara* "he went away," دبر *ḍabr* "the quarter that is behind a thing, death, a piece of rugged ground," and a large number of other meanings. But here we have also ذار *ḍār*, originally ذور *ḍawar* "a house comprising several sets of apartments, and a court, abode, dwelling," hence ذير *ḍair* "convent, monastery," دار *ḍāra* "he went round, circled." In Assyrian we have *mudbaru* "steppe, desert," obviously a Semitic loan-word, for otherwise there is not a trace of this root. Thus it is clear that in the Semitic languages we have a loan-word from the outside. But Tat. *davar* "cattle" and Syr. *dabråyå* "wild" at once explain Pruss. *zvīrins*, Lith. *zvėris*, Lett. *zvērs*, OBulg. *zvěrĭ*, etc., Gr. ϑήϱ, Lat. *fera*, OHG. *dior* "animal, wild beast."

But we have also an Assyrian *subartu* "highland, the name of a country," which seems to be identical with Sansk. *śabara*, *śavara* "of a wild mountaineer tribe, savage," *śavara* "barbarous, low," which, among other things, leads to Sansk. *śambara* "mountain, elk." There can be little doubt that we have here another development of the foreign *tvar*, *dvar*, originally "leather bag," which here leads to "wild, wild animal," as was the case with the Semitic development of the root *dabar*. Hence it is most likely that in the name of *Doberus*, a city in Macedonia, we have a reference to a northern cattle raising district, and that in speaking of the bull of Doberus the poet had in mind a bull from a northern cattle raising district. It is even possible that the mountaineer people of Assyrian and Sanskrit antiquity, whose root word is *sabar*, are originally connected with a wild northern cattle raising district, and that *Sibir*, the origin of the modern *Siberia*, which was located to the north of Turkestan, is a reminiscence of that region with which the Sanskrit people in the beginning of the Christian era became acquainted through their colonies in Turkestan. Indeed, *śabara* does not seem to have entered Sanskrit before the Christian era.

If we now once more turn to Tatar *tör*, *tür*, we can easily see that we have here a development of the *twar* group just discussed. Unquestionably the *ton*, *tün*, *jon*, *jün* group, which Vámbéry gives[1] with the fundamental meaning "surface, covering," is ultimately related to it. The latter forms *jon*, *jün* indicate that *öñ*, *öng* "front"[2] also belong here, and there cannot be any doubt that the extremely rich group *õr*, *ür*, *ös*, *üs* "above, face," which all lead to words meaning "cover, protection," is merely an evolution of the same word. The dropping of the initial consonant, which is most marked in Yakut, is, no doubt, due to the combination *tw*, *dw*, which, as we have seen, also produced *f* in Latin. It is not my purpose to enter into the discussion of these groups and other related groups, but only to direct the attention to a whole series of words in the Semitic and Indo-European languages, where the same apheresis has been perpetuated.

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[1] *Op. cit.*, p. 184.

[2] *Ibid.*, p. 54 f.

We have Heb. עוֹר *'ōr* "hide, leather," which has puzzled the philologists. We have Aves. *avaretā* "property, movable possession," which stands alone. We get some light on the subject through Hesychius' «ἀόρτης, ξιφιστὴς, ὑπὸ Μακεδόνων ἄγγος δερμάτιον, ἱμάτιον» and Suidas' «ἀορτήν, λέγουσιν οἱ πολλοὶ νῦν ἀβερτήν, Μακεδονικὸν δὲ καὶ τὸ σκεῦος καὶ τὸ ὄνομα,» which show that ἀορτή and ἀβερτή come from the north, probably from a Tatar region. Ἀορτή "the aorta" originally meant a clothes chest, no doubt of leather. This is made a certainty from Lat. *averta* "the bag in which goods were shipped," which was unquestionably of leather, hence is given in the Edict of Diocletian under the caption, *De loramentis.*

In the east of Europe the Tat. *tavar* words prevailed. Here we find OBulg. *tovarŭ* "load," *tovarinŭ* "ass," Ruth. *tovar* "cattle, chattle," Russ. *tovar* "goods," etc. But in the west we have almost exclusively *avar* and *var* forms, due to a new apheresis by analogy. While we have MGr. τομάρι "leather," where the old form is preserved, the form τοβάρος naturally suggested τὸ βάρος, and so Gr. βάρος crowded it out and was used for "burden" of any kind. We frequently hear of βάρος as a tax or pay,[1] while in the west the

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[1] «Ἠδυνήθησαν δὲ οἱ μοναχοὶ τῆς δηλωθείσης μονῆς ἐφευρεῖν τοσούτους παροίκους ἀτελεῖς καὶ ἀπηλλαγμένους ὄντας παντὸς βάρους καὶ στρατιωτικοῦ λειτουργήματος» (1051), F. Miklosich and J. Müller, *Acta et diplomata graeca medii aevi sacra et profana,* Vindobonae 1887, vol. V, p. 7; «ὁ γὰρ

tavar, under the influence of Lat. *habere*, settled down to *habere*, *avere* "property, cattle,"[1] though the meaning "tax, expense" is also preserved,[2] and the meaning "bag," as in Greek, is not rare.[3]

οὕτως ἔχειν διαγινωσκόμενος οὐδεμίαν ἄνεσιν ἢ βοήθειαν ἕξει ἀπὸ τοῦδε τοῦ σιγιλλίου, ἀλλὰ πρὸς τὰ οἰκεῖα βάρη ἐπανακληθήσεται» (1051) *ibid.*; «πάντα τὰ ταύτης δημόσια τέλη καὶ βάρη, ὅσα καὶ οἶά εἰσι»(1088), *ibid.*, vol. VI, p. 49; «ἀπὸ παντὸς δημοσιακοῦ τέλους καὶ βάρους» (1099), *ibid.*, p. 95; «ὡς τοῖς Μαλαχιώταις ἀνήκει αὐτὴ καὶ γονικόθεν διαφέρει αὐτοῖς καὶ καταγεγραμμένη ἐστὶν ἐν τοῖς τούτων βιολογίοις καὶ βάρη τελεσμάτων ἐπίκεινται τούτοις δημοσιακῶν τε καὶ στρατιωτικῶν ἕνεκα ταύτης» (1262), *ibid.*, p. 212; «μὴ γονικῆς γὰρ εὑρεθείσης τῶν Μαλαχιωτῶν τῆς τοιαύτης γῆς, μήτε ἐπὶ τελέσματι καὶ βάρει κατεχομένης παρ' αὐτῶν, πάντως ἐκείνου ἦν τοῦ λαμβάνοντος τὴν μορτὴν αὐτῆς δεσποτικῷ δικαίῳ» (1262), *ibid.*, p. 213; «ἀλλὰ δὴ καὶ ἀπογραφικῶν ἀποκαταστάσεων καὶ ἑτέρων δικαιωμάτων πορίσωνται καὶ χρυσόβουλλον τῆς βασιλείας μου, ὡς ἂν κατέχωσι ταῦτα καὶ εἰς τὸ ἑξῆς ἀβαρῶς πάντη καὶ ἀτελῶς, καθὼς ταῦτα κατέχουσι μέχρι τοῦ νῦν» (1326), *ibid.*, p. 248.

[1] "Facio vobis cartam donacionis sive franquitatis, quod aliquis homo nostri comitatus, tam militis quam laicis, sive quid aliquid dederat vel vendiderint, tam kastris, quam mansibus, sive honoribus, vel *averibus*, sive pannos de seda et de lino, habeatis vos et successores vestri et ecclesiam Celsonensem franchum et liberum" (999), J. Villanueva, *Viage literario á las iglesias de España*, Valencia 1821, vol. IX, p. 220; "et ego ferriol cum vidissem tantam caritatem et tantam benignitatem erga nos, feci me monachum in sancti iohannis, et missi ibi de mea substancia sic de *habere* mobile quomodo et de hereditate" (1043), *Coleccion de documentos para el estudio de la historia de Aragon*, Zaragoza 1904, vol. I, p. 46; "fecerunt de homines de eorum terras super Alchagib et super suas terras tertiam partem, et hoc exceptus donum de *avere* et donum de ingeniatores et dispensa de sagittas, . . et quando fecerint pacem supradictos Comites et jamdicta Comitissa cum Alchagib, de illud *avere* mobile qui exierit eis per pacem de Alchagib, sine eorum parias habeant duas partes Comite Raimundo et Comitissa Adalmodis, et tertiam partem Ermengaudo Comite" (1058), P. de Marca, *Marca hispanica*, Paris 1688, col. 1111 f.

[2] "Vos debetis alias partes lucri et proventus habere et hoc lucrum debet intelligi et haberi deducto primo nostro capitali quantumcuque fuerit vel est et ductis omnibus expensis et *avariis* promito vobis notificare et facere cerciores de lignaminibus et operibus que fient et facta sunt in dicta silva et occasione dicte concessionis per me vel per meum missum quam citius potero" (1222), *Atti della Società Ligure de Storia patria*, Roma 1906, vol. XXXVI, p. 5.

[3] "Et debemus passare illum minstrale quod in domo Isarni proprie steterit, et donzela sua, et boverio suo, et pastore suo, et illum servent qui asinum suum menaria sine *avere*, et hoc si non potuerint transire Alga" (1129), *Layettes du Trésor des Chartes*, Paris 1909, vol. V, p. 13; "et in sua reversione nisi duxerint majus *avere* quam portaverint, solvant tantum duodecim Imperiales de fundo navis pro *avere* quod portaverint, aut de alio quod emerint. . . Et stando Ferrariae, vel eundo Venetias, de *avere* nihil solvant. . Brixienses quocumque vadant aut veniant, de fundo navis solvant duodecim Imperiales, et de carro *averis* sex Imperiales tam

It can be shown how the Tatar *tavar* reached the west of Europe. The Gr. βάρος, for τὸ βάρος, is found in the Graeco-Latin vocabularies. We have «βαρος sarcina pondus gravamen,"[1] "pondera σταθμια και βαρη,»[2] "onus γομος βαρος φορτιον»,[3] "gravamenta βαρη»,[4] "pondus βαρος,»[5] "*baros* pondus,"[6] "*barus* .i. bonus,"[7] "*baros* idest bonus."[8] In the last two cases "bonus stands for "honus," a natural mistake to make, since, as we shall soon see, *barus* comes to mean "chattel, goods," which suggested the Lat. "bona." Now we have also the Latin glosses "haec merx et haec merces quibus *onerantur* naues," *Glossae Abavus*,[9] and, similarly, *Glossarium Amplonianum Secundum*.[10] But the latter, which was used by the Anglo-Saxon glossators, in connection with the Graeco-Latin gloss "*barus* .i. bonus," produced the AS. "merx *waru*,"[11] whence Ger. *Ware*, Eng. *wares*.

The Greek, however, has preserved several forms of the longer τοϐάρος. We have the MGr. ταγάριον, τουϐρᾶς, τουρϐᾶς, ντορϐᾶς, Rum. *torbă*, *tolbă*, Alb. *torbe*, *torve* "grambag, knapsack," and the latter forms are already recorded in Turk. *tobra*, dial. *torba* "small leather bag" and Pers. *tubra* "leather bag for horses," which found its way into Cashmiri and other Indian

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in reversione, quam in adventu, et de quacumque navi facerent. . Et si semel solverint de *avere*, quod non plus solvant de eodem, nec de *avere* emto de donariis illius *averis*, de quo solvissent prius. . Item omnis Forensis, qui emit *avere* da penso, aut ad staderam, de quocumque *avere* solvat de centenario unum Imperialem" (1228), L. A. Muratori, *Antiquitates italicae medii aevi*, Mediolani 1739, vol. II, col. 31 f.

[1] Goetz, *Corpus glossariorum latinorum*, vol. II, p. 255.

[2] *Ibid.*, p. 153.

[3] *Ibid.*, p. 138.

[4] *Ibid.*, p. 34.

[5] *Ibid.*, vol. III, p. 471.

[6] *Ibid.*, p. 490.

[7] *Ibid.*, p. 554.

[8] *Ibid.*, p. 618.

[9] *Ibid.*, vol. IV, p. 348.

[10] *Ibid.*, vol. V, p. 299.

[11] T. Wright and R. P. Wülcker, *Anglo-Saxon and Old English Vocabularies*, London 1884, vol. I, col. 311.

languages. But ταγάριον led to a confusion of ταγή "command" with "daily ration of food," as which it appears among Byzantine writers, hence MGr. ταγίζω "to feed," τάγιστρον "provender bag," which ultimately leads to Ger. *Tornister* "knapsack."

From the confusion of Lat. *habere* "possession held by inheritance or on the basis of the Roman law," as opposed to *honos* "property held by a benefice," and Gr. βάρος "expenses, tax," which, as we have seen, found its way into the Germanic languages, there arose the meaning "chattel" for words derived from *avere*, even as in Anglo-Saxon it led to *averian*, *aferian* "to haul loads, to work with beasts of burden," as though from *faran* "to travel."

Similarly, Tat. *tavar* "goods" suggested itself to the Arabic as a derivative of عور *'awira* "he was blind" and produced عور *'awār* "a damage in goods, or commodities, or articles of merchandise," and this produced OFr. *avarie* "damage." We find this word for the first time in one manuscript of the *Assises de la cour des bourgeois* of Jerusalem;[1] but here it has already coalesced with Gr. βάρος and means "expenses," for it says that goods thrown away at sea could be reclaimed only to the extent of their cost, with their expenses, "et sachés que celui aver qui est geté ne deit estre conté for tant solement comme il costa [o ces *avaries*]." That the original meaning was "damage" is proved by OFr. *avarie* "damage to a ship or goods which it carries," as recorded in Godefroy and in Jal,[2] where we also find Ital. *avaria* = Lat. "jactus."

Here it is necessary to discuss the OHGerman word for "sacrificial animal," *zebar*, since it might be confused with our group and has led to most extravagant philological discussions, when in reality it is a ghost word. The Keronian glosses have

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[1] Beugnot, *Assises de Jérusalem*, Paris 1843, vol. II, p. 44

[2] *Glossaire nautique*, Paris 1848.

Hostia	uictima	*cepar* edo antfangida cote ist ante cotes pipot ist
Holocausta	integra hostia	anthaiz alonc *cepar*.

The lemma "hostia uictima holocausta" is found in the Graeco-Latin glosses «ϑυσία hostia uictima sacrificium immolatio" and otherwise very frequently, while we have the Latino-Greek glosses "*calpar* οἴνοσεν. ϑυσία,» "*calcar* ϑυσῖαι. ἀπαρχωνοίνου,» which, in their turn, are based on "*calpar* uinum quod primum libatur e dulio" of the Placidus glosses. The German glossator read *calpar* as *caepar* and, as usual, wrote *cepar*. As the housel was taken in wine, it was quite natural to apply the word to the housel in general. This *cepar* was later changed to *zebar*, and in Bishop Alfric's vocabulary for the first time entered Anglo-Saxon as *tifer*, in the significant gloss "libatio *wintifer*," and was generalized in Caedmon's *Genesis* as *tiber* "sacrificium, munus." The OHG. *cepar* was still further misread *aibr* in Gothic, and found its way into the Bible, Matthew V. 23, where it is the translation of "munus, sacrificial gift."

Totally unrelated with this is OFr. *toivre* "animal," which is generally quoted as derived from the same root as OHG. *zebar*. We have OFr. *atoivre* "manner of doing, apparel, everything which belongs to a thing, cattle," *atir* "garment," *à tire* "in order," *tire* "row, rank, order," *atirance* "disposition," *atirement* "agreement, arrangement, apparel," *atirer* "to arrange, procure, fix," *atourer* "to dress up," OProv. *aturar* "fix, dress up, apply," *atieirar* "to put in order," *tieira* "order," all of which come from Arab. طور *tawr*, pl. اطوار *'atwār*, "state, quality, disposition, manner, form, appearance, a thing that is commensurate or equal,"

طار, طارة *tār*, *tārah* "everything which surrounds a thing, circle." It is barely possible that in OFr. *atoivre* "cattle" there is a cross between *atoivre* "belongings" and an original *tavar* form, which has disappeared in the west; but that is not likely. However, we have in OFrench side by side *atoivre*, *toivre* and *aveir* "cattle." That OFr. *atoivre*, *atire* are from the Arabic is further proved by Span. *aparejo*, Fr. *appareil*, etc., from the Romance word for "equal," since this is an exact translation of the Arab. طور *tawr* "a thing that is commensurate or equal," hence "form, appearance," etc.

We can now approach the Arab. درقة لمط *ḍaraqah lamt*, which Dozy[1] has shown has led to Span. *adaragadante*, *adarga dante*, *adarga de ante*, *dargadante* "bucklers of tough hide," hence to Span. *ante* "leather of the buffalo or elk," *anta*, *dante*, *danta* "elk." Idrīsī[2] calls certain tribes in North Africa *Lamta* and says: "Here they manufacture the bucklers known as 'bucklers of *lamta*,' which are the most perfect imaginable." Leo Africanus calls the لمط *lamt* "an African gazelle," which apparently had long ago taken the place of the waning buffalo and elk in Europe: "*Lant*, ovver *dant*. Questo è un animale che somiglia al bue, di forma; ma è più piccolo, e à più gentili gambe e corna: il suo colore è quasi bianco, e l'unghie de' piedi sono negrissime: è velocissimo di corso; immodochè non è altro animale che lo avanzi, fuorchè, come s'è detto, qualche cavallo barbero: più agevolmente si piglia la state; perciocchè per lo calor dell' arena e per la velocità del correre l'unghie gli si muovono; onde per la passione non può correre. Così parimente si pigliano i capriuoli e i cervi. Del cuojo di questo si soglion fare alcune targhe fortissime per modo, che altra cosa non le può passare, che uno schioppo; ma molto care si vendono."[1]

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[1] *Glossaire des mots espagnols et portugais dérivés de l'arabe*, Leyde, Paris 1869, p. 195.

[2] P. A. Jaubert, *Géographie d'Édrisi*, vol. I, in *Recueil de voyages et de mémoires, publié par la Société de Géographie*, Paris 1836, vol. V, p. 205.

At the end of the XVI. century a substitute was found in an animal of the Congo: "Other animals are found in these regions standing about four feet less than oxen, with red-coloured skins, and horns like a goat, black, smooth, and glistening, of which they make pretty ornaments, such as are made also from buffalo horns. Their heads and hair resemble those of the ox, and their skins are much prized, being taken to Portugal and from thence to Germany to be dressed, and are called *Dants.* The King of Congo was desirous of having workmen skilled in the art of dressing and cleansing these skins, so as to make them into weapons of defence. Nevertheless, these people use them as shields and targets against the blows of different weapons, and especially against arrows."[2] But even before that time, soon after the discovery of America, the name was transferred to the tapir, because its tough hide promised to become a substitute for the ancient buffalo hide: "Los xp̃ianos que en tierra firme andan llaman *danta* a un animal que los Indios le nombran 'beori': a causa que los cueros destos animales son muy gruessos, pero no son *dantas.* . . hasta agora los cueros destos animales no los saben adobar ni se aprouechan dellos los christianos, porque no los saben tratar, pero son tan gruessos, o mas que los del bufano."[3] In the last edition of Oviedo's works he adds: "Y no creo que serian menos buenas las bardas ó cubiertas destos cueros de beoris para caballos de gente darmas, que todas las que pueden haçerse en Nápoles, ó donde mejores se haçen."[1] Pigafetta mentions *antas* in Brazil[2] and Albo so calls the llamas,[3] but these two reflect only the earlier authors who had mentioned the animal. Similarly Thevet was drawing on his imagination when he made the Indians manufacture bucklers from this hide: "Il s'y trouue encor là, grande quantité de bestes, appellees *Tapihires*, desirees et recommandees à cause de leur deformité. Aussi les Sauuagas les poursuyuẽt, tant pour en auoir la chair qui en est fort sauoureuse et saine, que pour les peaux, desquelles ils en font des rondelles fort larges, desquelles ils vsent et portent à la guerre, à cause qu'elles sont si dures et fortes, que à grand peine vn trait d'arbaleste les pourroit percer. Et vsent de pareille ru se à prendre le *Tapihire*, que à tromper les Sangliers, Cerfs, et Biches. Ceste beste est de la grandeur d'vn Asne, ayant le col plus gros, et la teste cõme celle d'vn Taureau, les dents trenchantes et aigues, non que pour cela elle en soit plus dangereuse: car estãt chassee, toute sa defense ne consiste qu'à la fuitte, et à cercher sa retraite, laquelle court plus vistement beaucoup que ne fait le Cerf. Elle n'a point de queuë, sinon bien peu, et icelle sans poil, tout ainsi que celle de l'Agoutin, cy dessus descrit. Aussi le pied fourchu, et cornue, et le poil rougeastre cõme celuy d'vne vache. Qui a causé, que plusieurs des nostres, estant de par delà, appelloient le *Tapihire*, *vache Sauuage:* mais il me semble autant participer de l'Asne que de la vache, veu que la difference y est aussi grande de l'vne espece que de l'autre."[4]

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[1] G. B. Ramusio, *Il viaggio di Giovan Leone,* Venezia 1837, p. 162.

[2] F. Pigafetta, *A Report of the Kingdom of Congo, and of the Surrounding Countries,* trans. and ed. by Margarite Hutchinson, London 1881, p. 51.

[3] Oviedo, *De la natural hystoria de las Indias,* Toledo 1526, fol. X.X

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[1] *Historia general y natural de las Indias*, Madrid 1851, vol. I, p. 406.

[2] J. A. Robertson, *Magellan's Voyage Around the World, by Antonio Pigafetta*, Cleveland 1906, vol. I, p. 36.

[3] *Ibid.*, p. 221.

[4] *La cosmographie universelle*, Paris 1575, vol. II, fol. 937 b.

In the Tupi dictionary[1] we find: "*tapyîra, caápoára, icúrê* the tapir; *tapy'ra* steer, ox." But no etymology of *tapyîra, tapy'ra* is known, and it can be shown that this is not a native word. While Guarani has *tapiî* "tapir," as borrowed from the Tupi, its native name is *mborobi*, and this is identical with Oviedo's *beori*, Carib *mai piure*, Galibi *maipuri*. I leave it for the present without a solution, from what strange word *tapyîra, tapy'ra* is derived, but it is significant that in Brazil the word was applied to "cattle" in general.

Having traced the *lamt* through Europe, Africa and America, we can now take up its genetic history in Asia. It has already been observed that "protective armor" generally begins with "felt" in the north. So, too, in this case we find Syr. ܠܡܛܐ *lamṭå*, Aram. נַמְטָא *namtā*, Pers. *namad*, Arab. نمط *namat* "felt;" but there is also Heb. לֶבֶד *lebed*, Talm. לִבְדָּא *libdā* "coarse cloth," Arab. لبد *libḍ* "felt," and here we have a late Semitic root for "to compress in the form of felt," namely, Syr. ܠܒܰܕ *lbad*, Arab. لبد *labiḍa* "he compressed," Talm. לָבַד *lābad* "to press close." The origin of the whole group is connected with the history of monasticism in Egypt.

There is a widespread Tatar root *bör, bür* "to cover,"[2] which produces the "felt hat" words, Čagatay *börük*, Osmanli *börk*, Altay *pürük*, which, no doubt, produced at an early time Gr. πῖλος "felt hat," πιλόω "to compress like felt," πιλωτός "compressed like felt." This produced Lat. *pileus, pilleus, pileum* "felt cap, felt," hence *pilo* "to compress;" and, since Gr. πῖλος is also used for

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[1] J. Platzmann, *Das anonyme Wörterbuch Tupi-Deutsch und Deutsch-Tupi*, Leipzig 1901.

[2] Vámbéry, *op. cit.*, p. 211.

"hair," there can be little doubt that Lat. *pilus*, in spite of the short *i*, also belongs here.

Gr. πιλίον, apparently "felt hat," was known in Egypt at least two centuries B. C., for we find in a papyrus «παϱεδώκαμεν. . .σὺν οἷς πεϱιεβέβλητο ἡματίοις τϱιβακοῖς δυσὶ καὶ χιτῶνι καὶ κϱάνωι καὶ πιλίωι».[1] Felt or tow was used in the hem of the garment for tassels, hence, as in the case of Gr. ϱάσον,[2] πιλίον could have been used for anything connected with the hem of the garment, or the garment itself. While we have Talm. פִּילְיוֹם פִּילְיוֹן *pīlyōn*, *pīlyōs* "felt, felt hat," we get in Coptic *pi-leos* "earrings, tassels," *pi-leon* "earrings, bracelets," *pi-lou* "border, tassel," *pi-lōu* "fringe, ring of a chain," *pi-loue* "bead ornament;" but in Coptic *pi* was taken for the masculine article, and thus there evolved the words without *pi*.

We have a recorded Gr. πίλημα "felt, thing made of felt," but as we have side by side πιλητόν, πιλωτόν "felt," a form πίλωμα is equally possible. This entered the Egyptian so early that it came back into Greek as an apocopated λῶμα "skirt of a robe, twisted cord," in which sense it is used several times by the Septuagint in Exodus. The Coptic words for veil and sail of a ship are frequently identical with "cover, garment," for example, *eršōn* "veil, rasum," *fork* "mantle, sail;" hence Copt. *labo*, *labōi* "sail," *lau* "veil" are unquestionably identical with *lou*, etc. But Gr. πιλητόν, πιλωτόν produced an apocopated Coptic word, which is recorded as *libitu*, *lebitōn*[3] "penitential robe."

It is, however, in the Greek and Latin sources on Egyptian monasticism that we first hear of the crude monastic gown made of tow, "indumentum ejus stupeum collobium erat, quod apud illos *lebetes* appellatur,"[1] though Suidas later says that it was made of hair, «λεϐητωνάριον, χιτὼν μοναχικὸς, ἐκ τριχῶν συντεθειμένος, κατὰ τὴν ἐγχώριον γλῶσσαν τῶν Προυσαέων».[2] This Gr. λεϐητών, Lat. *lebetes* produced the Semitic words, Syr. *lbad*, etc., even as Egyptian Gr. λώματα led to Syr. ܠܡܛܐ *lamṭâ*, Arab. نمط *namat*, Pers. *namad*, Magyar *nemez* "felt." But in Arab. درقة لمط *ḍaraqah lamt*, the Arabic word, which originally meant "felt," changed to "tough leather" of any animal whose hide could be properly prepared for defensive armor.

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[1] Grenfell, Hunt and Smyly, *The Tebtunis Papyri*, London 1902, part I, p. 533.

[2] See my *Contributions*, vol. I, p. 246 ff.

[3] W. E. Crum, *Catalogue of the Coptic Manuscripts in the Collection of the John Rylands Library*, Manchester 1909, p. 105.

Gr. πιλωτόν entered into Syriac as ܦܠܘܛܐ ܦܝܠܘܛܐ *pelūṭâ*, *pīlūṭā* "felt garment, sackcloth, saddlecloth," whence it found its way into Leo's *Tactica* VI. 8, where ἀφέλετρον τῆς σέλλας means "saddle cloth." The *Tactica* was written in the VIII. century, and we learn from Leo's Ἐπαρχικὸν Βιϐλίον[3] that the Syrians, which includes the Arabs, imported a large number of woolen goods, of which some Arabic names are given. There can be no doubt that the Syriac word for "felt garment, saddle cloth," which in Arabic must have been pronounced *felūtah*, *filūtah*, since it has no *p*, entered the Greek in the form of φέλετρον, ἀφέλετρον, of which the latter is recorded in the *Tactica*.

When we first meet *filtrum* in LLatin, it means "felt mattress, saddlecloth," that is, it is identical with Gr. ἀφέλετρον, from the Syriac word, and this from the Gr. πιλωτόν: "si quis in exercitu aliquid furaverit, pastoria, capistro, freno, feltro."[4] In the

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[1] Rufinus, *Historia monachorum*, cap. VII, in Migne, *P. L.*, vol. XXI, col. 411.

[2] See in Ducange, sub λεϐητών, λευιτών, λεϐητωνάριον, *levitonarium*.

[3] J. Nicole, *op. cit.*, p. 29.

[4] *Lex Baiuwariorum*, II. 6, in *MGH.*, *Leges*, vol. III, p. 285, and see Ducange, sub *feltrum*.

OHGerman vocabularies *filtrum* is given as a Latin word, for which the OHGerman translation is *filz*;[1] but these vocabularies are comparatively late. The oldest supposedly OHGerman gloss is the one found in the so-called Keronian interlinear version of the Rule of St. Benedict, where over "matta saga" is found the reading "filzalii digunt recinun,"[2] which is obviously a Latin, and not an OHGerman gloss to "saga." The whole rule runs as follows: "stram(en)ta autem lectorum sufficiat matta saga et lena et capitale." To this a XII. century author, Bernardus Portarum, says: "ad lectum habeto stramen, *filtrum*, coopertorium de grossis ovium pellibus rustico panno coopertum, vel cotum, pulvinum, ad caput."[3] But an unknown "magister" of the VII. or VIII. century, says: "in lectis habeant in hyeme singulas mattas, et sagos tomentatios singulos, et lanas: in aestate vero pro lanis *rachinis* propter aestus utantur."[4] From this it follows that while some spoke only of a *saga*, apparently a felt mattress, others varied it with a *rachina* in the summer.

In the Edict of Diocletian we have "sagum sive *rachanam* rudem,"[5] from which it appears that the two did not differ very much. In the same edict a felt saddlecloth is mentioned as *centunclum:* "centunclum equestrae quoactile album sibe nigrum,"[6] and we learn that such a *centunclum*, πίλημα or πιλωτόν, was used in embroidery.[7] This at once explains "centones *filtra*" in the *Codex Vaticanus Reg. Christ. 215*, of the

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[1] Steinmeyer and Sievers, *Die althochdeutschen Glossen*, vol. III, pp. 618, 619, 622.

[2] Cap. LV, in H. Hattemer, *Denkmahle des Mittelalters; St. Gallen's altteutsche Sprachschaetze*, St. Gallen 1844-1849, vol. I, p. 108.

[3] Migne, *P. L.*, vol. CLIII, col. 894.

[4] *Ibid.*, vol. LXXXVIII, col. 1031.

[5] VII. 60, in H. Blümner, *Der Maximaltarif des Diocletian*, Berlin 1893, p. 24.

[6] VII. 52, *ibid.*, p. 22.

[7] VII. 53, *ibid.*, p. 24.

IX. century, and Ugutio's "centro, onis, dicitur pulvinari vel velum de multis pannis, vel qui facit *filtra* ad ipsum *filtrum*." This at once leads to the ASaxon X. century gloss "centrum, uel filtrum, *felt*."[1]

Filtrum, *feltrum* is, naturally, nothing but Gr. πιλωτόν, which became public property through the important *Tactica* and the Arabic traders. The gloss in the Rule of St. Benedict "*filzalii* digunt recinun" on the one hand identifies *filz* with "sagum," as in a number of OHGerman glosses, and, on the other, identifies "sagum" with "racana," as in the Edict of Diocletian. *Filzalii* is merely a local Swiss form of "*filtralii*," which actually is reproduced in the *Codex Cheltenhamensis 7087*,[2] of the XII. century, as *sagū filtril*, where *filtril* appears on the OHGerman side of the vocabulary, the copyist having found in his copy the reading *filtr. al.*

Thus we have in OHG. *filz*, AS. *felt* a survival of Gr. πιλωτόν, which through the Egyptian, Coptic, and Arabic ultimately led to "buffalo hide," and to the "elk" words in Spanish.

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[1] Wright and Wülcker, *op. cit.*, col. 120.

[2] Steinmeyer and Sievers, *op. cit.*, vol. IV, p. 178, note.

IV. THE TRAGELAPHUS.

The *tragelaphus* was by the Greeks considered to be a mythical animal, and Aristophanes classed it with the equally impossible *hippalector*.[1] The front part of the putative animal was represented in Greek art, and τραγέλαφος was the name of a drinking vessel, possibly because it had the representation of the lascivious animal upon it.[2]

The τραγέλαφος got into the Septuagint by a mistake. I have already shown that it is found in Deut. XIV. 5 only in the *Codex Alexandrinus*. It is found universally in the Septuagint only in Job XXXIX. 1, where it is the translation of Heb. יָעֵל *yā'ēl*. This Hebrew word again occurs in Psalm CIII. 18, where it is rendered simply by ἔλαφος, and in 1 Reg. XXIV. 3, where it was treated synoptically with Job XXXIX. 1 and produced confusion in the minds of the translator. על פני צורי היעלים was taken by some translators of the Septuagint to mean "on the face of (a place called) the rocks of the deer," hence, although Aquila wrote «ἐπὶ πρόσωπον τῶν πετρῶν τῶν ἐλαφίνων,» and Theodotion wrote «ἐπὶ πρόσωπον τῶν πετρῶν τῶν ἐλάφων,» others, according to Eusebius,[3] left *aalim* untranslated, and this appears corrupted in some manuscripts as 'Αειαμείν, while others misread Heb. צור as ציד and wrote «ἐπὶ πρόσωπον τῆς θήρας τῶν ἐλάφων.»

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[1] «Οὐχ ἱππαλεκτρυόνας μὰ Δί' οὐδὲ τραγελάφους, ἅπερ σὺ,|ἂν τοῖσι παραπετάσμασιν τοῖς Μηδικοῖς γράφουσι,» *The Frogs*, 937-8.

[2] A. Böckh, *Die Staatshaushaltung der Athener*, ed. by M. Fränkel, Berlin 1886, vol. II, p. 231 f.

[3] P. de Lagarde, *Onomastica sacra*, Gottingae 1887, 226.

In Job XXXIX. 1 the Heb. יעלי סלע is rendered in the Septuagint by «τραγελάφων πέτρας,» but סלע suggested סלעים *selaim* "Petra," a place, and would appear in Greek as ΣΑΛΑΕΙΜ. Now this ΣΑΛΑΕΙΜ is given as the translation of צורי היעלים, from a confusion with a place name, "The Rocks of the Deer," and found its way in the corrupted form Σαδδαειμ into the Septuagint, in 1 Reg. XXIV. 3. There can be little doubt, also, that יעלי סלע was likewise conceived as the name of a particular kind of deer, namely "rock deer," even as צורי היעלים was "deer rock;" and this "rock deer" should have been rendered into Greek as πετρέλαφος or πετροέλαφος, or, what is more likely, πέτρας ἔλαφος. But the same Egyptian influence which changed πίλωμα to λῶμα, caused the scribe to read πε + τρέλαφος or πε + τροέλαφος or πε + τρασέλαφος, from which evolved the impossible τραγέλαφος, as a reminiscence of the classical hybrid animal.

Thus the τραγέλαφος entered the Bible. Origen considered it to be a fabulous animal: "Si vero etiam de inpossibilibus legibus requirendum est, invenimus *tragelafum* dici animal, quod subsistere omnino non potest, quod inter munda animalia etiam edi iubet Moyses, et grifum, quem nullus umquam meminit vel audivit humanis manibus potuisse succumbere, manducari prohibet legislator. . . . Haec ne requirenda quidem arbitrantur de tragelafo et grifo et vulture, fabulas autem quasdam inanes et frivolas commentantur."[1] Olympiodorus wrote, «τραγέλαφος ἤτοι αἴγαστρος,»[2] the latter, no doubt, for αἴγαγρος, as in the Graeco-Latin glosses, "hebex αἰγαγρος».[1] St. Augustine's version of Job XXXIX. 1 reads "si cognovisti tempus pariendi *tragelaphorum* petras," which he explains «τράγος hircus est, ἔλαφος cervus: *tragelaphus* ergo compositum ex hirco et cervo animal."[2] But Jerome simply used *ibex* in place of *tragelaphus* in Job XXXIX. 1, and said of this animal: "*ibices* ipsi sunt, quos Graeci *tragelaphos* vocant, admixto nomine hirci et cervi." Similarly Gregory the Great used *ibex* for *tragelaphus*, and by his commentary on Job XXXIX. 1 showed that *ibex* was popularly confused with *ibis:* "Meridiana pars ibices aves vocat, quae Nili fluentis inhabitant. Orientalis vero Occidentalisque plaga parva quadrupedia ibices nominat quibus et moris est in petris parere, quia neque sciunt nisi in petris habitare; quae si quando etiam de altis saxorum cacuminibus ruunt, in suis se cornibus illaesa suscipiunt."[3] This went into Isidore as "ibices, quasi avices, eo quod ad instar avium ardua et excelsa teneant et in sublime inhabitent, ita ut de sublimitate vix humanis obtutibus pateant; unde et meridiana pars ibices aves vocant, qui Nili fluentis inhabitant; haec itaque animalia, ut diximus, in petris altissimis commorantur, et si quando ferarum vel hominum adversitatem persenserint, de altissimis saxorum cacuminibus sese praecipitantes in suis se cornibus inlaesa suscipiunt,"[4] while *ibis* is mentioned by him elsewhere: "*ibis* avis Nili fluminis, quae semetipsam purgat, rostro in anum aquam fundens."[5]

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[1] *De principiis*, IV. 3, in *Die griechischen christlichen Schriftsteller der ersten drei Jahrhunderte*, Leipzig 1913, vol. V, p. 325 f.

[2] Migne, *P. G.*, vol. XCIII, col. 412.

It will later be shown that Aristotle's passage on the *bonasus* in his *De animalibus historia* is an interpolation. Here it is necessary only to refer to a passage in it, in which he says that the *bonasus* resembles an ox, except that it has a mane like a horse, «καὶ τὸ ἄλλο δ' εἶδος ὅμοιον βοΐ, πλὴν χαίτην ἔχει μέχρι τῆς ἀκρωμίας ὥσπερ ἵππος».[1] We read in another place «ἔχει δὲ καὶ ὁ βόνασος τὰ ἐντὸς ἅπαντα ὅμοια βοΐ»,[2] which is merely attached to a general discussion ending with a chance reference to the ox, and so is obviously spurious, as which it is marked by Dittmeyer.[3] We have also the sentence, «τὰ δὲ δασύτερα τὸν αὐχένα ὁμοίως πάντῃ, οἷον ὅσα χαίτην ἔχει, ὥσπερ λέων· τὰ δ' ἐπὶ τῷ πρανεῖ τοῦ αὐχένος ἀπὸ τῆς κεφαλῆς μέχρι τῆς ἀκρωμίας, οἷον ὅσα λοφιὰν ἔχει, ὥσπερ ἵππος καὶ ὀρεὺς καὶ τῶν ἀγρίων καὶ κερατοφόρων βόνασος»,[4] where the position at the end of the list shows that the *bonasus* was slipped in later, especially since it is followed by the description of the ἱππέλαφος, which is distinctly that of the long-horned ox or bison, which is again mentioned as having horns: «ἔχει δὲ καὶ ὁ ἱππέλαφος καλούμενος ἐπὶ τῇ ἀκρωμίᾳ χαίτην καὶ τὸ θηρίον τὸ πάρδιον ὀνομαζόμενον· ἀπὸ δὲ τῆς κεφαλῆς ἐπὶ τὴν ἀκρωμίαν λεπτὴν ἑκάτερον· ἰδίᾳ δ' ὁ ἱππέλαφος πώγωνα ἔχει κατὰ τὸν λάρυγγα· ἔστι δ' ἀμφότερα κερατοφόρα καὶ διχαλά· ἡ δὲ θήλεια ἱππέλαφος οὐκ ἔχει κέρατα· τὸ δὲ μέγεθός ἐστι τούτου τοῦ ζῴου ἐλάφῳ προσεμφερές· γίγνονται δ' οἱ ἱππέλαφοι ἐν Ἀραχώταις, οὗπερ καὶ οἱ βόες οἱ ἄγριοι.» The words «ἔστι δ' ἀμφότερα κερατοφόρα,» which are a tautology as regards the *bonasus*, puzzled the copyists, and so some of the manuscripts read after ἀμφότερα «ὅ τε βόνασος καὶ ὁ ἱππέλαφος.» The ἱππέλαφος does not occur anywhere else, and, like the βόνασος, is an interpolation, since both represent the same animal, as is evidenced by "equina iuba, cetera tauro similis" of Pliny's description of the *bonasus*.

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[1] Goetz, vol. III, p. 431.

[2] Migne, *P. L.*, vol. XXXIV, col. 880.

[3] *Ibid.*, vol. LXXVI, col. 543.

[4] XII. 1. 16-17.

[5] XII. 7. 33.

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[1] P. 630 a.

[2] P. 506 b.

[3] *Aristotelis De animalibus historia*, Lipsiae 1907, p. 58.

[4] P. 498 b.

From this it is clear that the ἱππέλαφος is a non-existing animal due merely to a confusion of the *bonasus* with the τραγέλαφος, through the reference to a horse. This is proved, beyond a shadow of a doubt, since the statement that the ἱππέλαφος has a mane on its shoulders and a beard on its throat, and is found in Arachosia, is present in an almost identical form in Pliny in reference to the *tragelaphus*, which marks this latter passage also as an interpolation, due to an acquaintance with the Biblical *tragelaphus*. Here we read: "est eadem specie, barba tantum et armorum villo distans, quem *tragelaphon* vocant, non alibi quam iuxta Phasim amnem nascens."[1] This brief statement is interlarded between the description of the deer and the statement that Africa has no deer. From Pliny the statement found its way into Solinus, where it immediately precedes the story of the Hercynian forest: "eadem paene specie sunt quos *tragelaphos* dicunt, sed non alibi quam circa Phasidem apparent: tantum quod illi villosos habent armos et menta promissis hirta barbis."[2] Isidore has the same: "*tragelaphi* a Graecis nominati, qui cum eadem specie sint ut cervi, villosos tamen habent armos ut hirci, et menta promissis hirta barbis, qui non alibi sunt quam circa Phasidem."[3] Here, however, we see plainly that the whole is an expansion of Jerome's note to Job XXXIX. 1, "quos Graeci *tragelaphos* vocant, admixto nomine hirci et cervi."

In the VIII. or IX. century the *tragelaphus* became identified with the elk through a series of formal mistakes. In the Graeco-Latin glosses we frequently meet with the gloss «ἔλαφος ceruus,"[1] which also appears as "*clafos* .i. ceruus,"[2] "*clauos* idest ceruus."[3] In the *Corpus*, *Epinal*, and *Erfurt Glossaries* the Greek word appears on the right side, as though it were ASaxon, "cerus *elch*, *elh*." Eucherius, in the first half of the V. century, wrote "*tragelaphus* in Deuteronomio *platoceros*, id est, cornibus latis."[4] One MS. reads *platoceruus*, two read *platocerus*, obviously connecting it with "ceruus." Eucherius apparently got his *platoceros* from Pollux, who said of the deer: «τῶν δὲ ἐλάφων ἄκερως μὲν ἡ θήλεια, ὁ δ' ἄρρην κερωφόρος, ἢ κερασφόρος, ἢ κεράστης, ἢ εὔκερως,» to which some MSS. add «ἢ πλατύκερως, ἢ ὑπέρκερως».[5] Eucherius changed the definition of a stag into a subdivision of the cervine family, with which he identified the *tragelaphus*. Eucherius' gloss found its way into *Codex Vaticanus 1468*, where we read "*tragelafum* quem nos dicimus *platoceruum*."[6] The *Corpus*, *Epinal*, and *Erfurt Glossaries* have, similarly, "tragelafus uel platocerus *elch*," where *elch* is simply the gloss of "cerus," that is, "cervus," as before. This is proved conclusively from the OHGerman glosses, where we have "tragelaphum" rendered by *elaho*, *elahun*,[7] which come much closer to the ἔλαφος of the Graeco-Latin glosses.

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[1] VIII. 120.

[2] XIX. 19.

[3] XII. 1. 20.

It can easily be shown that *elch* is not a Germanic word originally. We have Tatar *älik*, *elik* "deer," Chin. *luh*, old pron. *lok* "deer," Tunguz *loki* "elk." This is represented in Assyr. *ālu*, *aʿālu* "an animal of the stag kind," and similarly in the other Semitic languages. There can be little doubt that Gr. ἔλαφος is directly related to the root *alu*, *aluh* in the northern Asiatic languages. But as we pass over to Europe we get a modification of this root, and also another root which is represented in Fin. *hirvi*, Esthon. *hirwe*, *hiržwe*, Lap. *sarva*, Magy. *szarvas* "deer." Of course, these are all related to Fin. *sarwi*, Esthon. *sarwe*, Lap. *čoarve*, Magy. *szarv* "horn," and to Lat. *cornu* and all the "horn" words in the Indo-European and Semitic languages. I am not concerned in this place with the proof of the relation of all the European and Asiatic languages, but only with the obvious fact that names of animals know no philological delimitations, but depend on geographical proximity. The Finnish name for "deer," of which the original root was nearly *karv*, is represented in Lat. *cervus*, OPruss. *sirwis*, Welsh *carw*, Corn. *caruu*, *carow*, Bret. *caru*, Gael. *cabrach*, *carbh*, *car* "stag," and possibly Lith. *karve*, OBulg. *krava* "cow." Esthon. *hiržwe* at once explains Lett. *iržis* and OHG. *hiruz*, *hirz*, which produces Ger. *Hirsch*, and not *Hirz*.

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[1] Goetz, vol. II, pp. 99, 294, 556, vol. III, pp. 18, 90, 189, 259, 320, 361, 431, 441, 493, 518, 520.

[2] *Ibid.*, vol. III, p. 556.

[3] *Ibid.*, p. 621.

[4] *Instructiones*, lib. II, in *CSEL.*, vol. XXXI, p. 157.

[5] V. 76.

[6] Goetz, vol. V, p. 517.

[7] Steinmeyer and Sievers, *op. cit.*, vol. I, pp. 293, 366, 367, 368.

AS. *heorot*, *heorut*, ONorse *hjörtr* are formed as though OHG. *hiruz* had the sound of *hiruts*, but in that case the northern forms would be back formations. This is not as impossible as would at first appear, since the word is absent from the early ASaxon vocabularies, *elch* having taken its place. The earliest occurrence of *hiruz* in OHGerman is in *Codex Sangallensis 913*,[1] but this very vocabulary also contains one of the very oldest ASaxon animal glossaries, which shows that it can be demonstrated that an Arabic glossary lies at the foundation of the "hind" words in both ASaxon and OHGerman, the latter containing the older forms.

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[1] *Ibid.*, vol. III, p. 5

We find the ASaxon gloss "damma, bestia idest *eola*"[1] in the *Corpus*, *Epinal*, and *Erfurt Glossaries*, and "damma *elha*" in the *Leiden Glossary*.[2] This is obviously Arab. ايلة *'iyyalah* "hind." If this is approached to AS. *elch* "elk," as is generally done, then the latter would also be Arab. ايل *'iyyal* "deer;" but we have already seen that the OHG. *elaho* relates the word to the Gr. ἔλαφος. In *Codex Sangallensis 242* we have not only "alx *elaho*," but also "cervus *hiruz*," "cerua *uuinta*," "hinnulus *hintcalb*." Thus we get in OHGerman both *uuinta* and *hinta* for "hind," which appears in ASaxon as *hind*, for example, in the *Kentish Glosses* of the IX. century, "cerua carissima et gratissimus hinnulus, eala đu liofeste *hind* and gecwemest hindcealf."[3] OHG. *uuinta* was changed to *hinta*, apparently under the influence of Lat. "hinnulus," since we have also "cerua *hinna*;"[4] but *uuinta* is Arab. انثى الايل *'unsah* (*al-'iyyali*) "the female of the stag," another form for ايلة *'iyyalah*. The Arabic gloss is, no doubt, due to the same cause which created such havoc with the "tragelaphus" of Job XXXIX. 1, where "cerva" is also mentioned.

The most persistent root for the northern cervine kind, chiefly for the elk and reindeer, is *oron* or *boron:* Koib. *bulan*, Soy. *pulan*, Karag. *būr*, Samoy. *bulan*, *peang*, *peak* "elk," Tung. *oron*, Fin. *poro* "reindeer," Esth. *podr* "elk, deer," the Finnish antiquity of which is assured by Basque *oreñ*, *oreiñ* "deer." This at once explains Russ. *olen'*, *elen'*, Lith. *elnas* "deer," Ger.

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[1] Goetz, vol. V, pp. 357, 404.

[2] J. H. Hessels, *A Late Eighth-Century Latin-Anglo-Saxon Glossary*, Cambridge 1906.

[3] Wright and Wülcker, *op. cit.*, col. 58.

[4] Steinmeyer and Sievers, *op. cit.*, vol. III, p. 447.

Elen "elk," etc. It is most likely that ultimately all those are related to the Asiatic *alu* "deer" words, hence to Gr. ἔλαφος. At the same time they completely exclude the OHG. *elaho*, AS. *elch*, which, as we have seen, are of book origin, although ultimately also related to this group. ONorse *hreinn*, AS. *hran* "reindeer" are similarly derived from the root from which comes Basque *oreñ*.

V. THE TARANDUS.

To determine the status of the mythical animal known as *tarandus*, it is necessary to study the vicinage in those authors where the *tarandus* is mentioned. In Isidore we have the following sequence:

"*Grypes* vocatur, quod sit animal pinnatum et quadrupes. Hoc genus ferarum in Hyperboreis nascitur montibus. Omni parte corporis leones sunt; alis et facie aquilis similes; equis vehementer infesti. Nam et homines visos discerpunt.

"*Chamaeleon* non habet unum colorem, sed diversa est varietate consparsus, ut pardus. Dictus autem ita . . . Huius chamaeleontis corpusculum ad colores quos videt facillima conversione variatur, quod aliorum animalium non est ita ad conversionem facilis corpulentia.

"*Camelopardus* dictus, quod dum sit ut pardus albis maculis superaspersus, collo equo similis, pedibus bubulis, capite tamen camelo est similis. Hunc Aethiopia gignit.

"*Lyncis* dictus, quia in luporum genere numeratur; bestia maculis terga distincta ut pardus, sed similis lupo: unde et ille λύκος, iste lyncis. Huius urinam convertere in duritiam pretiosi lapidis dicunt, qui lyncurius appellatur, quod et ipsas lynces sentire hoc documento probatur. Nam egestum liquorem harenis, in quantum potuerint, contegunt, invidia quadam naturae ne talis egestio transeat in usum humanum. Lynces dicit Plinius Secundus extra unum non admittere fetum.

. . . .

"*Lupos* Aethiopia mittit cervice iubatos, et tanto varios ut nullum colorem illis abesse dicant."[1]

From this sequence it would appear as though the *chamaeleon* were an animal of the Hyperborean regions, while similarly the *lynx*, from its position after the *camelopard*, could be taken for a specifically Ethiopian beast. In Solinus the animals of Ethiopia are given together: the *camelopard* is followed by the apes and the rhinoceros, because this is the chronological order in which, according to Solinus, they appeared in the Roman spectacles: "Then comes the catoblepas, the gold-digging ants, the lycaon, the *parandrus*, the thoas, the histrix, the pegasus, and the tragopan." Of all these Isidore knows only the rhinoceros and the histrix. It is most likely, therefore, since the others also appear in Pliny, whom Isidore frequently mentions, that the original Pliny did not have these animals, and that they are interpolations. The passage in Solinus runs as follows:

"Quae locorum Aethiopes tenent, feris plena sunt, e quibus quam *nabun* vocant nos *camelopardalim* dicimus, collo equi similem, pedibus bubulis, capite camelino, nitore rutilo, albis maculis superspersa. Animal hoc Romae circensibus dictatoris Caesaris primum publicatum.

"Iisdem ferme temporibus illinc exhibita monstra sunt, *cephos* appellant, quorum posteriores pedes crure et vestigio humanos artus mentiuntur, priores hominum manus referunt: sed a nostris non amplius quam semel visa sunt.

"Ante ludos Cn. Pompeii *rhinocerotem* Romana spectacula nesciebant: cui bestiae color buxeus, in naribus cornu unicum et repandum, quod subinde attritum cautibus in mucronem excitat eoque adversus elephantos proeliatur, par ipsis longitudine, brevior cruri-

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[1] XII. 2. 17-20, 24.

bus, naturaliter alvum petens, quam solam intellegit ictibus suis perviam.

"Iuxta Nigrim fluvium *catoblepas* nascitur modica atque iners bestia, caput praegrave aegre ferens, aspectu pestilenti: nam qui in oculos eius offenderint, protinus vitam exuunt.

"*Formicae* ibi ad formam canis maximi harenas aureas pedibus eruunt, quos leoninos habent: quas custodiunt, ne quis auferat, captantesque ad necem persequuntur.

"Eadem Aethiopia mittit *lycaonem:* lupus est cervice iubatus et tot modis varius, ut nullum colorem illi dicant abesse.

"Mittit et *parandrum*, boum magnitudine, bisulco vestigio, ramosis cornibus, capite cervino, ursi colore et pariter villo profundo. Hunc parandrum adfirmant habitum metu vertere et cum delitescat fieri adsimilem cuicumque rei proximaverit, sive illa saxo alba sit, seu frutecto virens, sive quem alium modum praeferat. Faciunt hoc idem in mari polypi, in terra chamaeleontes: sed et polypus et chamaeleon glabra sunt, ut pronius sit cutis laevitate proximantia aemulari: in hoc novum est ac singulare hirsutiam pili colorum vices facere. Hinc evenit ut difficulter capi possit.

"Aethiopicis *lupis* proprium est, quod in saliendo ita nisus habent alitis, ut non magis proficiant cursu quam meatu: homines tamen numquam impetunt. Bruma comati sunt, aestate nudi: *thoas* vocant.

"*Hystrix* quoque inde loci frequentissima, erinacii similis, spinis tergum hispida, quas plerumque laxatas iaculatione emittit voluntaria, ut assiduis aculeorum nimbis canes vulneret ingruentes.

"Illius caeli ales est *pegasus:* sed haec ales equinum nihil praeter aures habet.

"*Tragopan* quoque avis maior aquilis, cornibus arietinis praeferens armatum caput."[1]

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[1] XXX. 19-29.

In Solinus *nabun* is another name for the camelopard, that is, the giraffe. In the corresponding place in Pliny *nabun* is given as the Ethiopic name, but there is no such word for the giraffe anywhere. The word arose through a blunder. In Isidore we find the camelopard mentioned by the side of the leopard in a way which would lead the incautious reader to take the *pardus* for a kind of *camelopardus*. Now, in the *Codex Toletanus*[1] there is an Arabic gloss opposite *pardus* of XII. 2. 10, namely النمر *'an-namir* "leopard panther." This *namir* was obviously read by the interpolator as *nauur* or *nauus*, producing an accusative *nauum*, which is found in three old MSS. of Solinus, and *nabum*, which is found in three other old Solinus MSS. Hence *nabun* of the Solinus and Pliny MSS. is simply a misunderstood *nabū*, and of a later date.

In Solinus it is said that Ethiopia sends the *lycaon*, a wolf with a mane and so speckled that not a single color is absent. In Pliny the abbreviated statement, "nisi in Indis *lycaon*, cui iubata traditur cervix,"[2] is clearly interpolated, since it interferes with the story of the *tarandrus*, and since we have the previous statement, "*lyncas* vulgo frequentes et sphingas . . Aethiopia generat."[3] The two are again mentioned in Mela, as an interpolation, "saevissimae ferae omni colore varii *lycaones*, et quales accepimus, sphinges."[4] *Lynx* and *lycaon* are identical, the latter arising from Isidore's juxtaposition of λύκος and *lynx*, which led the interpolator to form a non-existing *lycaon*.

In Pliny the first two items appear expanded, as follows:

"Harum aliqua similitudo in duo transfertur animalia. *Nabun* Aethiopes vocant collo similem equo, pedibus et cruribus bovi, camelo capite, albis maculis rutilum colorem distinguentibus, unde appellata *camelopardalis*, dictatoris Caesaris circensibus ludis primum visa Romae. Ex eo subinde cernitur, aspectu magis quam feritate conspicua, quare etiam ovis ferae nomen invenit.

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[1] R. Beer, *Isidori Etymologiae, Codex Toletanus (nunc Matritensis) 15, 8*, Lugduni Batavorum 1909.

[2] VIII. 123.

[3] VIII. 72.

[4] III. 9.

"Pompei Magni primum ludi ostenderunt *chama*, quem Galli *rufium* vocabant, effigie lupi, pardorum maculis.

"Iidem ex Aethiopia quas vocant κήπους, quarum pedes posteriores pedibus humanis et cruribus, priores manibus fuere similes. Hoc animal postea Roma non vidit."[1]

Chama is given as a superscription in one MS. and as *chaū* in another. In the first the MS. reads *raphium* for *rufium*. The first sentence of the passage in Pliny informs us that the resemblance to the camels, of whom he speaks before, is transferred to two animals. The first is obviously the *camelopard*, the second must be an animal like it, and it is clear that nothing like it was found in Gaul. Indeed, neither *chama* nor *raphium* is found anywhere else. Now in Isidore the *camelopard* is immediately followed by the *lynx*, and of it it is said "bestia maculis terga distincta ut pardus, sed similis lupo." In Pliny "effigie lupi, pardorum maculis" is an abbreviation of the same. What happened is this. In some codex there stood at the end of the camelopard story the gloss "cam. giraf." or *giraphus*, from the Arab. زرافة *zarāfah* "giraffe." The interpolator read this "*cam.* gi *raf*" and explained it as two names of the animal given as "lynx," one being *cam*, the other *rafius*, the name given by "gi" "the Gauls." Thus arose another impossible animal.

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[1] VIII. 69-70.

Now we can approach the *parandrus* of Solinus. In describing the *parandrus* as of the size of an ox, with cloven feet, branching horns, stag head, and bear fur, the interpolator had in mind the *tragelaphus*. But where he makes the animal change color, he is unmistakably writing about the chameleon. This unnatural animal has fortunately left behind every philological blunder that led to its procreation. From Isidore we learn that the *chameleon* is as speckled as the *pardus*, and opposite the story of the chameleon in the *Codex Toletanus* stands the Arabic gloss, الوزل *al-wazal*. This is the name of a lizard, which is recorded also as ورن وزن ورر ورل *waral*, *warar*, *wazan*, *waran*, etc.[1] The name is originally Kabyl, where we find *aburiul*. The indecision in writing is due to the fact that it was a foreign word, in which و and ز were not always distinguished. *Waran* and حردون *ḥirdaun* "lizard" suggest that a form *warandaun* also existed, and this would lead to the form *parandrus* in Solinus. But the case is far more complex. In the Latin-Arabic glossary *cameleon* is glossed by وعل *wa'l*, instead of ورل *waral* or وزل *wazal*. But in another place *ibis*, that is, "ibex," is similarly glossed. The *ibex*, however, was identified by the church fathers with the *tragelaphus*, hence in Spain, through Arabic influence, the chameleon became confused with the tragelaphus, and the equation of chameleon and *pardus* as regards color led to the form *parandus*, an animal combining the qualities of the chameleon and the tragelaphus. Whether the Arab. *waran* or a similar form entered into association with *pardus*, to create the form *parandrus*, as which the animal is given in Solinus, is immaterial, since even as it is, it could not have been created without the double value of Arab. وعل *wa'l* "chameleon, tragelaphus," as which it appears in the earliest Latin-Arabic glossary.

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[1] R. Payne Smith, *Thesaurus syriacus*, Oxonii 1879, vol. I, col. 1368.

In Solinus this strange hybrid is placed in Ethiopia. Its description is partly that of the *tragelaphus*, and partly that of the chameleon. The *tragelaphus* had already been identified with the elk, from whose hides shields were made, but this characteristic appears only in Pliny, because here the *tarandrus*, instead of Solinus' *parandrus*, is placed among the Scythians, that is, in the north, where alone the elk is found: "Mutat colores et Scytharum *tarandrus* nec aliud ex iis quae pilo vestiuntur, nisi in Indis lycaon, cui iubata traditur cervix. Nam thoes—luporum id genus est procerius longitudine, brevitate crurum dissimile, velox saltu, venatu vivens, innocuum homini—habitum, non colorem, mutant, per hiemes hirti, aestate nudi. Tarandro magnitudo quae bovi est, caput maius cervino nec absimile, cornua ramosa, ungulae bifidae, villus magnitudine ursorum, sed, cum libuit sui coloris esse, asini similis. Tergori tanta duritia, ut thoraces ex eo faciant. Colorem omnium arborum, fruticum, florum locorumque reddit metuens in quibus latet, ideoque raro capitur. Mirum esset habitum corpori tam multiplicem dari, mirabilius est et villo."[1]

The information about the shields was received from Aelian, where the *tarandus* is briefly mentioned as an animal of the Scythians which changes colors and resembles an ox: "Ruborem, pallorem, livorem, homini et bestiis cutem mollem habentibus, et minime villosis, accidere, nihil mirum; *tarandus* vero seipsum cum villis suis vertit, et innumeras colorum species cum summo videntium stupore reddit. Scythicum id animal est, dorso et magnitudine tauro simile; ejus corium ne spiculo quidem penetrari potest, quamobrem eo Scythae sua scuta inducunt."[1] Of course, this is an interpolation. Aristotle knows nothing of the animal, but it is found in the Περὶ θαυμασίων ἀκουσμάτων, where we get the simplest and clearest combination of the chameleon and the elk: «Ἐν δὲ Σκύθαις τοῖς καλουμένοις Γελωνοῖς φασὶ θηρίον τι γίνεσθαι, σπάνιον μὲν ὑπερβολῇ, ὃ ὀνομάζεται τάρανδος (τάρανδρος, τάνανδρος)· λέγεται δὲ τοῦτὸ μεταβάλλειν τὰς χρόας τῆς τριχὸς καθ' ὃν ἂν καὶ τόπον ᾖ· διὰ δὲ τοῦτο εἶναι δυσθήρατον [καὶ διὰ τὴν μεταβολήν]. καὶ γὰρ δένδρεσι καὶ τόποις, καὶ ὅλως ἐν οἷς ἂν ᾖ, τοιοῦτον τῇ χροίᾳ γίνεσθαι· θαυμασιώτατον δὲ τὸ τὴν τρίχα μεταβάλλειν· τὰ γὰρ λοιπὰ τὸν χρῶτα, οἷον ὅ τε χαμαιλέων καὶ ὁ πολύπους· τὸ δὲ μέγεθος ὡσανεὶ βοῦς· τοῦ δὲ προσώπου τὸν τύπον ὅμοιον ἔχει ἐλάφῳ».[2] The interpolation in Hesychius speaks of the τάρανδος only as the elk: «τάρανδος, ζῶον ἐλάφῳ παραπλήσιον, οὗ τὰς δορὰς εἰς χιτῶνας χρῶνται Σκύθαι.»

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[1] VIII. 123-124.

The Commentary to the *Hexaemeron*, wrongly attributed to Eustathius of Antioch, contains a lengthened *Physiologus*, and here the τάρανδος is placed among the Λώοι, instead of the Γελώνοι of Aristotle: «Ἔστι δὲ ἐν τοῖς Σκύθαις τοῖς καλουμένοις Λώοις ζῶον καλούμενον τάρανδος, μέγεθος ἔχον βοὸς, τὴν δὲ ὄψιν τῆς τοῦ ἐλάφου παραπλήσιον. Καὶ ἔστι δυσθήρατον, τῷ πρὸς τὰ δένδρα καὶ χωρία, καὶ πρὸς πάντα οἷς ἂν ἐγγίζῃ τὴν χροιὰν μεταβάλλειν, καὶ τῇ ἐκείνων ἀφομοιοῦσθαι ἰδέᾳ, καὶ διὰ τοῦτο εἶναι πολλοῖς ἀνεπίγνωστον. Ὁμοίως δὲ καὶ ὁ χαμαιλέων εἰς οἵους ἂν ἕρπῃ λειμῶνας, καὶ ἐδάφη ξηρὰ, τὴν χροιὰν ἐκείνων μεταλαμβάνει».[3] The position of the animal between the *antholops* and the stag shows clearly that a cervine animal was meant by him.

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[1] II. 16.

[2] P. 832 b.

[3] Migne, *P. G.*, vol. XVIII, col. 740.

There is a book on marvelous animals, which is ascribed to Antigonus of Carystia, but which from its contents is later than Περὶ θαυμασίων ἀκουσμάτων, to which it refers. Here we read, after the account of the polyps and chameleon: «’Αριστοτέλης δέ φησι, καὶ τὸν καλούμενον τάραντον τοῦτο πάσχειν, ὄντα τετράπουν, καὶ σχεδὸν ἴσον ὄνῳ, καὶ παχύδερμον, καὶ τετριχωμένον· καὶ θαυμαστὸν εἶναι, πῶς αἱ τρέχες οὕτως ὀξέως ἀλλοιοῦνται».[1]

The fragment ascribed to Theophrastus by Photius, which is a very elaborate expansion of the original story, as told in Aelian, etc., is unquestionably by that scholar and forger, Photius. It runs as follows: «Οτι τὰς χρόας μεταβαλλόμενοι καὶ ἐξομοιούμενοι φυτοῖς καὶ τόποις καὶ λίθοις οἷς ἂν πλησιάσωσι πολύπους ἐστὶ καὶ χαμαιλέων καὶ τὸ θηρίον ὁ τάρανδος ὃ ἐν Σκύθαις φασὶν ἢ Σαρμάταις γίνεσθαι· μεταβάλλει δ’ ὁ χαμαιλέων εἰς πάντα τὰ χρώματα, πλὴν τὴν εἰς τὸ λευκὸν καὶ τὸ ἐρυθρὸν οὐ δέχεται μεταβολήν· καὶ οὐ πρὸς τὰ παρακείμενα μόνον χρώματα μεταβάλλει ἀλλὰ καὶ αὐτὸς καθ’ ἑαυτὸν ἐάν τις μόνον ἅψηται αὐτοῦ τὸ χρῶμα μεταβάλλει· ὁ δὲ τάρανδος τὸ μὲν μέγεθός ἐστι κατὰ βοῦν τὸ πρόσωπον δὲ ὅμοιος ἐλάφῳ πλὴν πλατύτερος ὡσανεὶ ἐκ δύο συγκείμενος ἐλαφείων προσώπων· δίχηλον δ’ ἐστὶ καὶ κερασφόρον· ἔχει δὲ τὸ κέρας ἀποφυάδας ὥσπερ τὸ ἐλάφου, καὶ τριχωτόν ἐστι δι’ ὅλου· περὶ γὰρ τὸ ὀστοῦν δέρματός ἐστιν ἐπίτασις ὅθεν ἡ ἔκφυσις· τὸ δὲ δέρμα τῷ πάχει δακτυλιαῖόν ἐστιν ἰσχυρὸν δὲ σφόδρα, διὸ καὶ τοὺς θώρακας ἐξαυάζοντες αὐτὸ ποιοῦνται· σπάνιον δὲ τὸ ζῶον καὶ ὀλιγάκις φαινόμενον· θαυμαστὴ δ’ ἡ μεταβολὴ καὶ ἐγγὺς ἀπιστίας· τοῖς μὲν γὰρ ἄλλοις ἐν τῷ δέρματι γίνεται ἡ μεταβολὴ ἀλλοιουμένης τῆς ἐντὸς ὑγρότητος εἴτε αἱματώδους ἢ καί τινος ἄλλης τοιαύτης οὔσης, ὥστε φανερὰν εἶναι τὴν συμπάθειαν· ἡ δὲ τῶν τριχῶν μεταβολὴ ξηρῶν τε ὄντων καὶ ἀπηρτημένων καὶ ἀθρόον οὐ πεφυκότων ἀλλοιοῦσθαι, παράδοξος ἀληθῶς καὶ ἀπίθανος, μάλιστα πρὸς πολλὰ ποικιλλομένη· ὁ δὲ χαμαιλέων δοκεῖ τῷ πνεύματι ποιεῖν τὰς μεταβολὰς, πνευματικὸν γὰρ φύσει· σημεῖον δὲ τὸ τοῦ πνεύμονος μέγεθος· σχεδὸν γὰρ δι' ὅλου τοῦ σώματος τέταται· ἅμα δὲ καὶ αὐτὸς ἐξαιρόμενος καὶ φυσώμενος».[1]

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[1] Cap. XXXI.

There is also a passage in Philo's *De ebrietate*, which is, to say the least, an interpolation, and which is especially important, since the word ἀλκῇ used in it gave rise to the name *alce* for the elk: «Φασὶ μέντοι καὶ ἐν Σκύθαις τοῖς καλουμένοις Γελώοις θαυμασιώτατόν τι γίνεσθαι σπανίως μέν, γίνεσθαι δ' ὅμως θηρίον, ὅ καλεῖται τάρανδρος, μέγεθος μὲν βοὸς οὐκ ἀποδέον, ἐλάφῳ δὲ τὸν τοῦ προσώπου τύπον ἐμφερέστατον· λόγος ἔχει τοῦτο μεταβάλλειν ἀεὶ τὰς τρίχας πρός τε τὰ χωρία καὶ τὰ δένδρα καὶ πάνθ' ἁπλῶς οἷς ἂν ἐγγὺς ἱστῆται, ὡς διὰ τὴν τῆς χρόας ὁμοιότητα λανθάνειν τοὺς ἐντυγχάνοντας καὶ ταύτῃ μᾶλλον ἢ τῇ περὶ σῶμα ἀλκῇ δυσθήρατον εἶναι».[2]

From the above passages it follows that the *tarandrus* was considered to be a *bos cervi figura* "an ox resembling a stag," and this appellation occurs at least twice in two significant places, in Caesar's *De bello gallico* and in the *Lex salica*. In the latter place we read: "Si quis stadalem uaidaris ceruum aut *bouum ceruia* tribute saliuerit."[3] The writer of the law, no doubt, had in mind the elk. The *bos cervi* of Caesar will be discussed in connection with the *alce*.

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[1] F. Wimmer, *Theophrasti Eresii Opera quae supersunt omnia*, Lipsiae 1862, vol. III, p. 218.

[2] P. 383 f., in P. Wendland, *Philonis Alexandrini Opera quae supersunt*, Berolini 1897, vol. II, p. 203 f.

[3] LXXXII.

VI. THE ALCE.

The last clause in Philo says that the *tarandrus* can hide itself on account of its protective color, "and in this way, rather than by the strength of its body, it is hard to catch." To one badly versed in Greek grammar the last sentence would appear to mean, "in this way, rather than by its body, the *alce* is hard to catch." This is actually what has taken place. Indeed, by this sentence the *tarandrus* was split into two beings, the *bos cervi figura*, and the *alce*.

It must be kept in mind that the *tarandrus* grew out of the story of the camelopard, the giraffe, and of this the Arabic source says: "It is a certain beast of a beautiful make, having long fore legs and short hind ones, the collective length of both the hind and fore legs being nearly ten cubits. Its head is like that of a camel, its horn is like that of a cow, its skin is like that of a leopard, its legs and hoofs are like those of a cow, and its tail is like that of a gazelle. It has no knees to its hind legs, but its two knees are attached to its fore legs. When it walks, it advances its left hind leg first and then its right fore leg, contrary to the rule of all other quadrupeds, which advance the right fore leg first and then the left hind leg. Among its natural qualities are affection and sociableness. It ruminates and voids globular dung. As God knew that it would derive its sustenance from trees, He has created its fore legs longer than the hind ones, to enable it to graze on them easily."[1] According to the Arabic source it may appear that the giraffe had one horn, and no knee joints, at least on its hind legs, as we find it in the interpolation in Caesar.

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[1] Ad-Damīrī, *op. cit.*, vol. II^1, p. 8.

"Est *bos cerui figura*, cuius a media fronte inter aures unum cornu existit excelsius magisque directum his, quae nobis nota sunt, cornibus: ab eius summo sicut palmae ramique late diffunduntur. Eadem est feminae marisque natura, eadem forma magnitudoque cornuum. Sunt item, quae appellantur *alces*. Harum est consimilis capris figura et uarietas pellium, sed magnitudine paulo antecedunt mutilaeque sunt cornibus et crura sine nodis articlisque habent, neque quietis causa procumbunt neque, siquo adflictae casu conciderunt, erigere sese aut subleuare possunt. His sunt arbores pro cubilibus: ad eas se adplicant atque ita paulum modo reclinatae quietem capiunt. Quarum ex uestigiis cum est animaduersum a uenatoribus, quo se recipere consuerint, omnis eo loco aut ab radicibus subruunt aut accidunt arbores, tantum ut summa species earum stantium relinquatur. Huc cum se consuetudine reclinauerunt, infirmas arbores pondere adfligunt atque una ipsae concidunt."[1]

The sentence, "sunt item, quae appellantur *alces*," shows that the interpolator cautiously split the animal into two; but the reference to the speckled skin of the *alce* shows that it was derived from the camelopard, with which it agrees in the main points. The jointlessness of the hind legs has been extended to all legs, and the confusion with the chameleon is here the same as with the *tarandrus*. We find the same interpolation in Pausanias, where an elaborate but ill-disguised attempt was made to hide the borrowing. After mentioning the Paeonian bull, in place of the *urus* in Caesar, the interpolator stupidly speaks of Indian camels resembling in color the leopards, instead of honestly referring to the camelopard. Then he goes on to use the identical phrase about the *alce*, as in Caesar, but places it in the Celtic country, and tells of the difficulty of hunting it.

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[1] *De bello gallico*, VI. 26-27.

«Εἶδον δὲ καὶ ταύρους τούς τε Αἰϑιοπικούς, οὓς ἐπὶ τῷ συμϐεϐηκότι ὀνομάζουσι ρινόκερως, ὅτι σφίσιν ἐπ᾽ ἄκρᾳ τῇ ρινὶ ἐνέστηκε κέρας καὶ ἄλλο ὑπὲρ αὐτὸ οὐ μέγα, ἐπὶ δὲ τῆς κεφαλῆς οὐδὲ ἀρχὴν κέρατά ἐστι, καὶ τοὺς ἐκ Παιόνων— οὗτοι δὲ οἱ ἐκ Παιόνων ἔς τε τὸ ἄλλο σῶμα δασεῖς καὶ ἀμφὶ τὸ στέρνον μάλιστά εισι καὶ τὴν γένυν—καμήλους τε Ἰνδικὰς χρῶμα εἰκασμένας παρδάλεσιν· ἔστι δὲ ἄλκη καλούμενον ϑηρίον, εἶδος μὲν ἐλάφου καὶ καμήλου μεταξύ, γίνεται δὲ ἐν τῇ Κελτῶν γῇ· ϑηρίων δὲ ὧν ἴσμεν μόνην ἀνιχνεῦσαι καὶ προϊδεῖν οὐκ ἔστιν ἀνϑρώπῳ· σταλεῖσι δὲ ἐς ἄγραν ἄλλων καὶ τήνδε ἐς χεῖρά ποτε δαίμων ἄγει· ὀσφρᾶται μέν γε ἀνϑρώπου καὶ πολὺ ἔτι ἀπέχουσα, ὥς φασι, καταδύεται δὲ ἐς φάραγγας καὶ σπήλαια τὰ βαϑύτατα· οἱ ϑηρεύοντες οὖν, ὁπότε ἐπὶ βραχύτατον, σταδίων γῆν πεδιάδα χιλίων ἢ καὶ ὄρος περιλαϐόντες τὸν κύκλον μὲν οὐκ ἔστιν ὅπως διαλύσουσιν, ἐπισυνιόντες δὲ ἀεὶ τὰ ἐντὸς γινόμενα τοῦ κύκλου πάντα αἱροῦσι τά τε ἄλλα καὶ τὰς ἄλκας· εἰ δὲ μὴ τύχοι ταύτῃ φωλεύουσα, ἑτέρα γε ἄλκην ἑλεῖν ἐστιν οὐδεμία μηχανή».[1]

In Pliny the story of the *alce* runs as follows: "Septentrio fert et equorum greges ferorum, sicut asinorum Asia et Africa, praeterea *alcen* iumento similem, ni proceritas aurium et cervicis distinguat; item natam in Scadinavia insula nec umquam visam in hoc orbe, multis tamen narratam *achlin* haud dissimilem illi, set nullo suffraginum flexu, ideoque non cubantem et adclinem arbori in somno eaque incisa ad insidias capi, alias velocitatis memoratae. Labrum ei superius praegrande; ob id retrograditur in pascendo, ne in priora tendens involvatur."[2]

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[1] IX. 21. 2-3.

[2] VIII. 39.

Solinus does not mention the *achlin*, but, instead, compares the *alce* with the elephant: "Est et *alce* mulis comparanda, adeo propenso labro superiore, ut nisi recedens in posteriora vestigia pasci non queat. Gangavia insula e regione Germaniae mittit animal quale *alce*, sed cuius suffragines ut elephantis flecti nequeunt: propterea non cubat, cum dormiendum est, tamen somnulentam arbor sustinet, quae prope casuram secatur, ut fera dum adsuetis fulmentis innititur faciat ruinam. Ita capitur: alioquin difficile est eam mancipari: nam in illo rigore poplitum inconprehensibili fuga pollet."[1]

In both the giraffe has become considerably transmogrified. Ad-Damīrī says that God created its forelegs longer in order that it should be able to graze more easily on the trees. Pliny makes the *alce* have a long neck, but, instead of the long legs, which it naturally needs, we get the useless long upper lip which goes back in grazing. In Pliny the *alce* has split into two animals, the second being the *achlin*, the origin and fate of which are extremely interesting.

In Arabic the elephant and the buffalo are classed together as the اقهبين *'aqhabain*,[2] which, without the vowel marks, would be read *aqhbin*. In Deuteronomy XIV. 5, which lies at the foundation of all our animals so far discussed, and in the sources from it, the buffalo and the tragelaphus are similarly coupled. This led to the confusion of *tragelaphus* with one of the *aqhbin*. Hence in Pliny the *achlin*, for Arab. *aqhbin*, was introduced, causing a split in the *alce*. But in Solinus the *alce* was kept one and inseparable, *aqhbin* merely suggesting that the elephant was similarly constructed.

This *achlin*, through a Gr. ἄχαιν or ἄχιν, found its way a second time as an interpolation into Pliny, where we are told that in India there were oxen with solid hoofs and one horn, and beasts by the name of *axin*, which had whiter spots than the skin of a fawn, dedicated to Dionysus: "in India et boves solidis ungulis, unicornes, et feram nomine *axin* hinnulei pelle pluribus candidioribusque maculis, sacrorum Liberi patris."[1] Here, as was the case with the camelopard, the animal has white spots, and, like the lynx, it is dedicated to Bacchus.[2] Thus the *axin* is due to the same confusion of camelopard and lynx which led to the *tarandrus*.

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[1] XX. 6-7.

[2] See p. 2.

In the spurious X. book of Aristotle's *De animalibus* we hear of "an *Achaine* (ἀχαίνης) stag that was caught with a quantity of green ivy grown over its horns, it having grown apparently as on fresh green wood, when the horns were young and tender."[3] The story is taken out of the forgery of Antigonus of Carystia: «ἤδη δὲ διειλῆφθαι ἀχαιΐνην ἔλαφον, κιττὸν ἔχουσαν ἐπὶ τῶν κεράτων, ὡς ἂν ἐνύγρων ὄντων».[4] That ἀχαιΐνη is a late word is proved by Athenaeus, who simply says, «ποῦ δὲ εἶδεν ἐκ κέρατος ἐλάφου κίσσον ἀναφύντα,» so that in his time this was merely an accident, such as very likely may have happened. But the ivy was dedicated to Bacchus, and this suggested the lynx which was dedicated to him, and this, as we have seen, led to the *achlin* in one place in Pliny, and to *axin* in another.

We find this ἀχαιΐνη in the 'Αργοναυτικά of Apollonius, where the whole line is clearly an interpolation: «ὅσση δὲ ῥινὸς βοὸς ἤνιος ἢ ἐλάφοιο | γίγνεται, ἥν τ' ἀγρῶσται ἀχαιινέην καλέουσιν, | τόσσον ἔην πάντῃ χρύσεον ἐφύπερθεν ἄωτον».[5] "Which the ἀγρῶσται call ἀχαιινέη." This curious ἀγρῶσται is due to a misunderstanding of the Placidus gloss, "lynx genus ferae *agrestis* uariae, similis leopardo, Libero patri sacratum,"[1] in connection with the camelopard story from which *achlin*, *axin*, ἀχαΐνη arose. The ἀχαΐνης is similarly connected with Bacchus in the *Anthologia Palatina*,[2] and in one of Babrius' fables the stag is several times called ἔλαφος and once ἡ ἀχαιίνη,[3] obviously as an interpolation, to boast of the newly acquired word for a particular kind of stag.

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[1] VIII. 76.

[2] Goetz, vol. V, p. 30, etc.

[3] P. 611. In Book II (p. 506) the Achaine stag is mentioned as having gall in its tail. This is unquestionably an interpolation.

[4] Cap. XXXV.

[5] IV. 174-176.

Isidore knew nothing of bisons, uri, and alces, for these are mentioned only in an off-hand manner, in what is obviously an interpolation, since only the uri are again mentioned, and that only in an interpolated passage, as will later be shown. The passage in Isidore runs as follows: "Gignit aves Hyrcanias, quarum pinnae nocte perlucent; bisontes quoque feras et uros atque *alces* parturit."[4] This is a summary of the statement in Solinus.

The Augustan historians have long been in ill-repute. The *alces* mentioned by them are, to say the least, interpolations. If they are not interpolations, the Augustan historians will have to be located in the VIII. century.[5] The *alces* also occur in Calpurnius:

> "Hic raram silvis etiam, quibus editur, *alcen*.
> Vidimus et tauros, quibus aut cervice levata
> Deformis scapulis torus eminet, aut quibus hirtae
> Iactantur per colla iubae, quibus aspera mento
> Barba iacet, tremulisque rigent palearia setis."[6]

A considerable number of the eclogues have already been declared spurious, and this VII. eclogue will have to be added to the number, since the *alces* is impossible, and, although the bisons and uri are not mentioned by name, the lines following the one in which the *alces* are mentioned unquestionably refer to them. The juxtaposition of the three animals, as in Isidore, marks them as spurious. There is a reference to elk horns in a testament, supposedly of a Lingonian of the time of Emperor Otho, but which has come down to us only in a MS. of the X. century. The last clause of the fragment asks that all the hunting gear be buried together with the body, and ends with the words, "et stellas omnes ex cornibus *alcinis*."[1] The document bristles with corrections, and "stellas" has remained inexplicable. It is impossible, therefore, to say that *alcinis* was found in the original document.

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[1] Goetz, vol. V, pp. 30, 81, 113.

[2] VI. 165.

[3] XCV. 87.

[4] XIV. 4. 4.

[5] "*Alces* decem," Capitolinus, *Gordiani tres*, III, XXXIII; "*alces*," Vopiscus, *Aurelianus*, XXXIII.

[6] *Ecl.* VII. 59-63.

In Oppian's Κυνηγετικά the bisons, here called βιστόνες, are followed by the description of the deer. Then come the *eurycerotes*, the *iorci*, the *bubalus*. We have also a reference to the horned ἀχαιΐνη.[2] The bison and bubalus will be discussed in their proper place. The *euryceros* is not further explained, because all the writer had before him was the late gloss, "tragelaphum quem nos dicimus *platoceruum*,"[3] hence he says: «Ἄλλους δ' αὖ καλέουσι βϱοτοὶ πάλιν εὐϱυκέϱωτας· | πάντ' ἔλαφοι τελέθουσι, φύσιν κεϱάων δ' ἐφύπεϱθεν, | οἵην τοὔνομα θηϱσὶ κατηγοϱέει, φοϱέουσι».[4] This is followed by a similarly brief description of the ἴοϱκος, which is not found in any other author. Of it the author says that it resembles a deer, but has a mottled skin like a leopard. It is clear that we have here the same animal as the *lycaon*, that is, originally the *lynx*. In Oppian we read:

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[1] *Corpus inscriptionum latinarum*, vol. XIII, No. 5708.
[2] II. 426.
[3] Goetz, vol. V, p. 517.
[4] II. 293-295.

«Τοὺς δ' ἄρα κικλήσκουσιν ἐνὶ ξυλόχοισιν ἰόρκους· | κἀκείνοις ἐλάφοιο δέμας, ρινὸν δ' ἐπὶ νώτῳ | στικτὸν ἅπαντα φέρουσι παναίολον, οἷά τε θηρῶν | πορδαλίων σφραγῖδες ἐπὶ χροῒ μαρμαίρουσι».[1] In another place the author calls the ἴορκος "shining" and distinguishes it from the δορκάς, so that no miswritten δορκάς can be assumed: «Καὶ δόρκους ὄρυγάς τε καὶ αἰγλήεντας ἰορκούς.[2] Ἴορκος is a misread λύγκες *lynces.* This is shown by Hesychius' «ἴορκες· τῶν δορκάδων ζώων· ἔνιοι δὲ, ἡλικίαν ἐλάφου» and «ἴυρκες· αἶγες ἄγριαι· ὑστριχίδες.» Thus we come back to the same source of blunder, which is due to the Arabic glosses to Isidore; and Oppian, in spite of the dedication of his poem to Caracalla, is an VIII. century forger.

While the confusion of lynx and tragelaphus was due to the juxtaposition of lynx, camelopard and chameleon in Isidore and the Arabic gloss to chameleon, there was another important factor which aided in the creation of a deer with leopard spots, and that was the Roman commercial name for the jackal or lynx. In Diocletian's Edict we find "pellis *lupi cervari*,"[3] translated by «δέρμα λύκου κεράστου (λύνγιον, λύκιον)», where the Greek, which already betrays a confusion of lynx and wolf, slavishly renders *cervarius* by "horned," whereas *cervarius* is a poor rendering of Heb. זְאֵב *zĕēb* or *zĕēv*, or Egyp. *sȧb* "the jackal." Solinus knows the *cervarius* as a variety of the wolf and different from the lynx.[4] In Pliny there is a reference to the *cervarius* as a wolf, but under the influence of the interpolated passage on the *chama*, he adds that a *cervarius* was brought into the arena of Pompey from Gaul: "sunt in eo genere qui *cervari* vocantur, qualem e Gallia in Pompei

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[1] II. 296-299.

[2] III. 3.

[3] VIII. 35.

[4] II. 37.

Magni harena spectatum diximus."[1] Here the interpolator still maintains that the *cervarius* is a wolf, while previously the *chama* or *rufius* was mentioned in connection with the giraffe and unquestionably was taken to be a *cervus luparius*, as which the ἴορκος appears full-fledged in Oppian.

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[1] VIII. 84.

VII. THE ANTHOLOPS.

Ad-Damīrī describes the يحمور *yaḥmūr* as follows: "The *yaḥmūr* is a wild, fast running animal, with long serrated horns, with which it cuts the trees. When it is thirsty and goes down to the Euphrates to drink, it finds the trees intertwined, which it cuts with its horns. It is said to be the same as the يامور *yāmūr*. Its horns are like those of a deer. It sheds them each year. They are solid and have nothing concave about them. They are reddish in color and are faster than the deer."[1] Al-Qazwīnī writes similarly: "The *yāmūr* is a wild, fast running animal, whose two horns are like saws. It resembles much a wild ox. It lives in thickets whose woods are intertwined. It becomes lively at the sight of water and runs there and plays among the trees. And its horns frequently get caught in the tangle of twigs so that it cannot free itself. Then it calls, and hearing its call people come and catch it."[2] Ibn Said says: "The *yāmūr* is a kind of ibex, which has one horn with many branches in the middle of the head."[3]

The nearest approach to Al-Qazwīnī's account is the one found in Pseudo-Epiphanius, who writes: "*Urus*, animal omnium maximum, similis est bovi, duoque habet cornua in modum serrae, estque prae omnibus animalibus terribile aspectu: itaque proceras arbores quatiens, illas dissecat, ramosque praescindit, nec est ullum animal illo fortius. Pascitur non longe ab Oceano, continuo vero ut bibit, veluti ebrius ludit, cornibusque tanquam bos terram petit. Est autem illic arbor dicta tanus, viti similis et alba ramis, quos cum urus capite concutit, cornu vincitur. Accedit itaque venator, et cornu alligatum deprehendit, illumque opprimit. Tu igitur, o spiritualis homo, considera quanto te uro generosiorem fecerit Deus. Loco enim duorum cornuum, duo tibi dedit Testamenta, Novum videlicet et Vetus, quae cornua sunt contra potestates adversas, ut ne te circumveniat diabolus, ait enim Propheta: In te inimicos nostros ventilabimus cornu. Oceanus copiam divitiarum significat, tanus vero, vitae voluptatem, qua implicitus homo fidem negligit. Venator igitur, hoc est diabolus, illum aggreditur, quem voluptatibus mancipatum, fidemque negligentem inveniens, in suam potestatem redigit."[1]

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[1] S. Bochart, *Hierozoicon, sive bipertitum opus de animalibus s. Scripturae*, revised by D. Clodius, Francofurti ad Moenum 1675, vol. I, col. 912.

[2] *Ibid.*, col. 912 f.

[3] *Ibid.*, col. 913.

Here *yāmūr* has become *ūr* οὖρος. In the Arabic version of Ad-Damīrī we read يجد الشجرة ملتفة "he finds intertwined trees." The accusative الشجرة *aš-šaǵaraṭan* "the thickly growing trees" was read by those who translated the Arabic *Physiologus* as the name of the forest or kind of tree that the *yāmūr* cuts down. This is proved beyond a shadow of a doubt by the Ethiopic *Physiologus*, where we read: "Here there is a tree whose name is *zarṭānē*, the branches of which are long."[2] In Pseudo-Epiphanius this *šaǵaraṭan* broke into two words, *šaǵar* "the densely growing tree" becoming δένδρον, and the second part appearing as τάνυς, the name of a tree with white branches resembling a vine. In other Greek versions we have τάνη, τάνος as the name of the tree."[3] In another, again, we read the corruption «ἔστι δὲ ἐκεῖ ἐρικίνη (ἐρείκη, ἐρεικίνα) λεπτόκλονος»[1] The Arab. شجرة *šaǵarat̩* not only means "a densely growing tree," but in a tradition it means "the grape vine, or the tree beneath which allegiance was sworn to the Prophet," hence the statement in the Greek *Physiologus*, "the name of a tree with white branches resembling a vine."

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[1] Migne, *P. G.*, vol. XLIII, col. 519 f.

[2] F. Hommel, *Die aethiopische Uebersetzung des Physiologus*, Leipzig 1877.

[3] A. Karnyeev, *Materialy i zamyetki po literaturnoy istorii Fiziologa*, 1890, p. 352.

The oldest Latin version of the *yāmūr* is found in the *Liber glossarum*, ascribed to Ansileubus, the Visigoth, who wrote it about the year 750. Here we read: "*Autolops*, animal est acerrimum nimis, adeo ut nec venatores ei possint adpropinquare. Habet autem longa cornua serrae figuram habentia, ita ut possit etiam arbores secare altas et magnas, et ad terram deponere. Cum autem sitierit, venit ad magnum Euphraten fluvium, et bibit; et est ibi frutex, qui dicitur graece *hericina*, habens virgulta subtilia atque prolixa. Veniens autem incipit ludere cornibus suis ad *hericinam;* et dum ludit, obligat cornua sua in virgultis eius. Cum autem diu pugnans liberare se non possit, exclamat voce magna: tunc audiens venator vocem eius venit, et occidit eum."[2]

This story is identical with the one given by Ad-Damīrī, and so represents the oldest form of the story, without the hermeneutic element attached to it. The *Berne MS. 233*, supposed to be of the eighth century, has the following text:[3] "De *autalops*. Est animal acerrimum nimis, ita ut venatore possit adpropinquare. Habet autem longa cornua serrae figuram habentia, ita ut possit etiam arbores secure altas et magnas, et ad terram deponere. Et cum

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[1] F. Lauchert, *Geschichte des Physiologus*, Strassburg 1889, p. 267, and Karnyeev, *loc. cit.*

[2] A. Mai, *Classicorum auctorum e vaticanis codicibus editorum tomus VII*, Romae 1835, p. 591.

[3] C. Cahier and A. Martin, *Mélanges d'archéologie, d'histoire et de littérature*, Paris 1851, vol. II, p. 117 f.

sitierit, venit ad magnum fluvium Eufraten, et bibit. Est autem ibi flutex qui dicitur grege *herecine*, habet autem virgulta, subtilia atque prolixa. Veniens autem, incipit ludere cornis suis ad *herecinam;* et dum ludit, obligat cornua sua in virgultis ejus. Quum autem diu pugnans liberare se non posset, exclamat voce magna. Audiens autem venator vocem ejus, venit et occidit eum. Sic et tu homo Dei, qui studes sobrius esse et castus, spiritaliter vivere, cui dua sunt cornua duo testamenta quem potes resecare et excidere abs te omnia vitia corporalia: hoc est adulterium, fornicationem, avaritiam, invidiam, superbiam, detractionem, aebrietatem, luxuriam, et omne ludibrium hujus saeculi pompam. Tunc congaudent tibi et omnes caelorum virtutes. Cave ergo, homo Dei, aebrietatem; ne obligeris luxoria et voluntati, et interficiaris a diabolo. Unum enim et mulieres apostatare faciunt homines a Deo."

A variant of this text is recorded in a MS. of the eleventh century: "Est et animal *autula* nomine, acerrimum nimis, ita ut nec ullus venatorum ei potest appropinquare. Habet enim cornua longa in similitudine serre quibus secare potest maximas quercus. Condensa et superflua queque arborum incidendo secat in nullo resistens. Quando vero sitierit venit ad flumen magnum eufraten et bibit. Sunt autem ibi virge viticee subtiles et molles; incipit autem et animal illud ludere cum virgulis illis. Et in ludendo obligat semetipsum cornu. Obligatusque ambis cornibus; vociferatque cum rugitu. Quia evadere non potest gracilibus virgulis circumseptus et tunc quilibet venatorum absconditus audiens vocem ejus currit et ligatum inveniens occidit. De qua re et tu homo qui profeceris abstinentiam, sicut fisus cornibus tuis, abscidisti fore detractiones, cupidates, libidines, silvam secularem et pompam diaboli. Congaudent tibi angelice virtutes. Duo cornua duo sunt testamenta. Sed noli ludere cum vino in quo est luxuria, nec te obliges et incidas in muscipulam adversarii, qui te videns obseptum vitio, occidit. Vir autem sapiens et prudens, a vino et muliere se avertit. Sunt enim duo lapides ignari, masculus et femina. In ergo professor intellige multos periisse propter vinum et feminas, et cautus esto ut salvus fias."[1]

Greek ἀνθόλοψ indicates an original Latin reading *antholops*, which in one of the above texts is misread *autolops*, *austulapsa*[2] and *aptalops*,[3] and occurs in the reduced forms *autula*, *autala*.[4] One form of this abbreviation was *antula*, as recorded in the French *Physiologus*,[5] although here also the forms *attula*, *aptolops*, *atalos*[6] are found. This *antula* is unquestionably the origin of Fr. *andouiller*, Eng. *antler*. The Arab. *šaǵarṭan* occurs in French as *héricine*, *evenchine*,[7] but seems to have produced no words in the other Romance languages.

The *yāmūr* is obviously taken out of a Syriac source; but the story of the animal which goes to the river to drink, and, playing with the bushes, is caught in the tree, is just as certainly a transformation of the Esopic story of the stag which goes to the water and there despises its thin legs, but is very proud of its serrated horns, and then is caught in the forest by its horns, while pursued by hunters or a lion:

«απο· ελαφου de cervo
ελαφος· ευμεγεθης ceruus bone magnitudinis
ωρα· θερους aestiuo tempore
διψη· λιπομενος siti deficiens
παραγινεται aduenit
επι·τινα· πηγην ad quendam fontem

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[1] G. Heider, *Physiologus*, Wien 1851, p. 27.

[2] M. F. Mann, *Der Bestiaire divin des Guillaume le Clerc*, in *Französische Studien*, vol. VI, part 2, p. 33.

[3] Cahier, *op. cit.*, p. 96.

[4] Mann, *op. cit.*, p. 31.

[5] Cahier, *op. cit.*, p. 116.

[6] *Ibid.*, p. 118

[7] *Ibid.*, p. 116.

διαυγη· και· βαθιαν limpidum et altum
και· πιων et cum bibisset
οσον· ηθελεν quantum uoluerat
προσειχεν adtendebat
τη· του· σωματος a corporie
και· μαλιστα· μενερηνι et maxime quid laudabat
την· φυσιν· των· κερατων naturam cornuorum
ανατεταμενωντε excelsissimam
εις· πολυν· αερα in multo aere
και· ως· κως· μοσειν et quod ornamentum esset
παντι· τω· σωματι omni corporis
εψεγεν· δε culpabat autem
την· των· κελων crurum
λεπτετητα exilitatem
ως· ουχοιωντε· οντων quas non esset
εριν· το· βαρος ferre pondus
εν· οις· δε· προς· τουτους· ην sed cum in his esset
ϋλαχητε· κινων latratus canum
εφνιδιως· ακου· ται subito audiit
και· κυνηγετε· πλεσιον et uenatores proximo
ο· δε· προσφυγην· ωρμα at ille in fugam ibat
και· μεχρις· οπου et quandiu quidem
δια· πεδιων per campos
εποιετο· τον· δρομον faciebat cursum
εσωζετο liberabatur
ϋπο· της· οκιτητος a uelocitate
των· σκελων crurum
επι· δε· εις· πυκνην sed ubi inspissam
και· δασιαν et condensam
υλεν· επεσεν siluam incidit
ενπλακεντων· αυτω obligatis ei; inplicatus
των· κερατων cornibus
εαλω captus est
πειρα· μαθων modo perdiscens
οτι· αρα· αδικουσεν quod iniustus esset
των· ϊδιων· κριτης suorum iudex
ψεγων· μενι culpas quidem uituperans
τα· σοζοντα· αυτον quae saluabant eum
επαινων· δε laudans autem
ϋψων· προδεδοται a quibus deceptus esset."[1]

This gave the Christian moralizer the opportunity to transform the story by referring to the horns as emblematic of the Old and the New Testaments and to the entwining branches as the vices that beset man. If man confided in his horns rather than his legs, that is, in the Old and New Testament rather than in the stimuli of vice, he would escape the devil.

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[1] *Hermeneumata leidensia*, in Goetz, vol. III, p. 40.

The *Hermeneumata leidensia* will prove of extreme importance in our study of the German *Antiquitas*, since it is apparently the first bilingual glossary, from which the Germanic glossaries and the essential points dealt with in the *Antiquitas* were derived. Now the fables begin with the words: "Nunc ergo incipiam fabulas scribere aesopias et subiciam exemplum per eum enim picturę constant sunt enim ualde necessarię ad utilitatem uitae nostrae primo ergo loco fabulam incipiam de ceruo."[1] The title *De ceruo* is in Greek απο ελαφου, and it is clear that this produced *autolops*, most likely through an Arab. ابلفس read اتلفس *aṭlfs*, hence *autolops*.

In the Old High German version we read: "an dem wazzere sint manige *gerten* chleine unde lange,"[2] where Arab. *šaǵarṭan* is abbreviated to *gerten*, as it is to *zarṭānē* in the Aethiopic version. In the Keronian glosses we find "sceptrum virga regalis *garte chuninclich*," but in one version we have "sceptrum *kertia*." From this develops the meaning "stimulus," but in Gothic we have the anomalous *gazds*, in ASaxon *gad*, in ONorse *gaddr* "stimulus, prick."

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[1] *Ibid.*, p. 39 f.

[2] Lauchert, *op. cit.*, p. 288.

VIII. THE URUS.

Urus in Pseudo-Epiphanius, for *tamurus*, that is, for the Arab. تلمود *ṭāmūr* is due to a gloss in Jerome, where some glossator's Arabic equivalent was given for "bubalus." Wherever the Bible has *yaḥmūr*, the Latin translation is *bubalus*, and this animal, later identified with an African gazelle, was supposed to be exceedingly fierce, and was from the start confounded with a wild ox, chiefly on account of the seeming derivation from "βοῦς, bos." When Martial wrote "illi cessit atrox *bubalus* atque bison,"[1] he did not confound the *bubalus* with the bison, but simply mentioned the two fierce animals together.[2] Jerome glossed Amos VI. 12, "numquid currere queunt in petris equi, aut arari potest in *bubalis?*," as follows: "posteriores (bubali) tam indomiti sunt, ut jugum cervicibus non recipiant, et cum silvestres boves sint, propter feritatem nolint terram vomere scindere."[3] This led to Isidore's "*bubali* vocati per derivationem, quod sint similes boum; adeo indomiti ut prae feritate iugum cervicibus non recipiant; hos Africa procreat."[4]

Everywhere else we find the *urus* substituted for the "bubalus," and it will now be shown that in each case we have an interpolation, if not a downright forgery. We read in Vergil, *Geor.* II. 373-375, as follows:

> "Cui super indignas hiemes solemque potentem
> silvestres *uri* adsidue capreaeque sequaces
> inludunt, pascuntur oves avidaeque iuvencae."

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[1] *De Spectaculis*, XXIII. 4.

[2] We shall later see, however, that this passage is based on a forgery.

[3] Migne, *P. L.*, vol. XXV, col. 1065.

[4] XII. 1. 33.

This is found in all the manuscripts in which the passage in the *Georgics* is preserved, the *Palatinus*, *Romanus*, *Schedae Veronenses*, *Mediceus*. The second half of line 374 occurs in Ausonius' *Cento nuptialis*, 18, hence it would appear that the three lines quoted from Vergil must have existed in the fourth century; but Ribbeck bracketed them[1] on the ground that they were tautologous with the three lines following, and assumed that Vergil had intended to delete them and substitute for them the following three lines, while Peerlkamp went further and took the questionable lines to be the interpolation of a grammarian.

Whichever way we take it, it is impossible for Vergil to have spoken of *uri* in Italy or, in fact, anywhere else. Not a poet, nor grammarian, nor lexicographer of the first few Christian centuries knows anything of the bison by that name. The one exception is Seneca, who, in his *Phaedra*, has "tibi villosi terga bisontes latisque feri cornibus *uri*" (65), but unfortunately Seneca has come down only interpolated, and no conclusion can be drawn from this reference to *uri;* besides, one series of manuscripts reads *tauri*. Already Cerda[2] was greatly puzzled by Vergil's reference to *uri* in the passage quoted and suggested that this was a miswritten *tauri*.

It might be supposed that *uri* was already in existence in the fifth century from its presence in a *Laterculus* of Polemius Silvius,[3] where, under the heading "Nomina cunctarum spirancium atque quadrupedum," we read "visons, *urus*, bos, bubalus." Unfortunately this *Laterculus* has come down only in a XII. century MS., and there are a number of animals in the list which were not known before the eighth century. We have here the quadruped *arcomus*,[1] which is a ghost word, the list "lacerta, lacrimus, *adis*," where the latter is the Ger. *Eidechse*, from an Arabic word,[2] the reptile *ablinda*,[3] of doubtful antiquity, and the swimming animal *serra*, a retranslation of a Syriac or Arabic word in the VIII. century.[4] Thus not the slightest faith can be placed in this *Laterculus*, since its interpolations are of the VIII. or later century.

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[1] *Prolegomena critica ad P. Vergili Maronis opera maiora*, Lipsiae 1866, p. 32.

[2] *P. Virgilii Maronis Bucolica et Georgica*, Coloniae Agrippinae 1647, p. 319 f.

[3] *MGH., Auct. ant.*, vol. IX, p. 543 f.

But we have distinct references to the Vergil passage in Servius and Macrobius. Servius writes: "Silvestres *uri* boves agrestes, qui in Pirenaeo monte nascuntur, inter Gallias et Hispanias posito; sunt autem, exceptis elephantis, maiores animalibus ceteris, dicti *uri* ἀπὸ τῶν ὀρέων, id est a montibus."[5] The gloss to *Georg.* III. 532-3, which in the manuscripts reads "et *uris* inparibus ductos," etc., is: "bubus agrestibus et ipsis inaequalibus: nam *uri* agrestes boves sunt, ut diximus supra; et hoc poetice dicit."[6] The *Brevis Expositio in Verg. Georg.* reads for the first: "silvestres *uri* qui in Pyrenaeo monte nascuntur inter Gallias. *Uri* autem boves silvestres, quos vulgo 'bobalos' appellant."[7] It is clear that one depends upon the other, but the absurd "inter Gallias et Hispanias" for "inter Galliam et Hispaniam" or "inter Gallias" of Servius, at once marks the first as derived from the second. Since the second, by its last sentence, is immediately related to the passage in Pliny, both passages must be later than Pliny, and it will be shown further down that in Pliny we have an VIII. century interpolation, hence neither passage can be of an earlier date. If we turn to Isidore, we find for *uri*[1] a quotation from Pliny, followed in the *Codex Toletanus*, and only there, by "dicti *uri* ἀπὸ τῶν ὀρέων, id est a montibus," which is from Servius. This leads to the conclusion that the Servius gloss is an VIII. century Spanish insertion, which found its way also into Isidore. We have still another evidence of the lateness of the Servius gloss. To *Aen.* II. 64 we read[2] in Servius: "quidam *inludere* per ludum ac iocum saevire in iniuriam alicuius intellegunt, ut 'silvestres *uri* adsidue capraeque sequaces,'" which is acknowledged to be a late interpolation, hence corroborates the lateness of the Vergil passage, without, of course, proving it.

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[1] See my *Contributions*, vol. II, p. 94 f.

[2] See this volume, p. 309.

[3] See p. 307.

[4] See p. 287.

[5] G. Thilo, *Servii Grammatici qui feruntur in Vergilii Bucolica et Georgica commentarii*, Lipsiae 1887, vol. III¹, p. 251.

[6] *Ibid.*, p. 317.

[7] *Ibid.*, vol. III², p. 306.

Macrobius, after discussing the Greek words in the Aeneid, goes on to say: "nec non et Punicis Oscisque uerbis usi sunt ueteres, quorum imitatione Vergilius peregrina uerba non respuit ut in illo

siluestres *uri* adsidue,

uri enim Gallica uox est, qua feri boues significantur.

Camuris hirtae sub cornibus aures.

Camuris peregrinum uerbum est, id est 'in se redeuntibus'. Et forte nos quoque *camaram* hac ratione figurauimus."[3] Both words are interpolations, based on the VIII. century reading of Vergil's *Georgica*. As there is not in existence an investigation of Macrobius' text as to interpolations, such as we have, for example, for Nonius, the interpolation in this case appears from the following outside considerations. The reference to *urus* being a Gallic word arises from Servius' location of the animal in Gaul, where it does not exist, and was not located by anyone else. The juxtaposition of *urus* and *camurus* is the same as in Isidore, where immediately after the *urus* we have the camel, with the following etymology: "quia curvus est dorso; ϰαμουϱ enim verbo Graeco curvum significat."[1] Of course, all this is nonsense, but since *camurus* is here given as a Greek word, Macrobius' scholium was totally unknown, and the information in the *Etymologiae* came from another source. We shall later see that the juxtaposition is Arabic, both being derived from Arabic words, but here we can only point out the uniqueness and unrelatedness in Macrobius to anything recorded, although the references are intelligible and easily explained from later references.

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[1] XII. 1. 34.

[2] Thilo and Hagen, *op. cit.*, vol. I, p. 227.

[3] VI. 4. 23.

Before returning to Pliny and Solinus, it becomes necessary to point out that the existing manuscripts of the *Georgica* are of late origin. The whimsicalness and unreliability of the science of palaeography is well brought out in this case. Ribbeck placed all of the manuscripts in the V. century or earlier, on the supposition that the capital writing was not found after that period.[2] Conington and Nettleship[3] placed the *Mediceus* in the V. century, because at the end of the *Eclogues* there is a "subscriptio" by Apronianus Asterius, dated A. D. 494. But M. Hoffmann[4] says that it is not certain that we have here the "subscriptio" of Apronianus for the whole work, since it is not at the end of the book, and may be a mere copy, and so comes to the conclusion that only palaeography could decide; but this leaves us in the lurch, "as it generally does." Therefore he concludes: "All that we may say with certainty is that the *Mediceus* is considerably old; it is probable that it belongs to the transition age from antiquity to the Middle Ages."

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[1] XII. 1. 35.

[2] *Op. cit.*, p. 231.

[3] *The Works of Virgil*, London 1898, vol. 1, p. CI.

[4] *Der Codex Mediceus, Pl. XXXIX, N. 1, des Vergilius*, Berlin 1889, p. XV.

The same uncertainty of dating exists in the case of the *Schedae Veronenses*, of which E. Chatelain[1] says: "Another manuscript of Verona, numbered XL (38), contains books XXVIII-XXXV of the *Moralia in Job* of Pope Gregory the Great in Lombard writing of the IX. century. The second half of the volume is palimpsest. There they found fifty one leaves of a manuscript of Vergil in large capitals, of which each page contained only thirteen verses, with broad margins reserved for scholia. These scholia, in small inclined writing, are probably contemporaneous with the transcription of Vergil, and *may go back to the IV. or V. century.*"

As the *Palatinus* and *Romanus* are obviously of the same period, it will suffice to discuss the latter. The *Romanus* is a beautiful manuscript in rustic capitals and contains a large series of illustrations. It has been variously dated as belonging to the second, fourth, fifth, eighth, and even thirteenth century.[2] De Nolhac,[3] quoting Ribbeck's investigation, shows that it is impossible to date any of the manuscripts of Vergil under discussion, but insists that the *Romanus* is of the VIII. century.[4] Traube[5] tried to save the antiquity of the MS., but was unable to assign to it a date earlier than the VI. century: "Palaeography entitles us to say that the *Romanus* is not a very old manuscript; it permits the assumption that it belongs to the VI. century."[6] When one considers that the *Utrecht Psalter* uses the same kind of rustic capitals and similar illustrations as the *Romanus*, and yet certainly is not of an earlier date than the VIII. century, one must confess that De Nolhac's date comes nearer the truth than any other. Had the *Utrecht Psalter* not made use of uncials for beginnings of lines and titles, the resemblance between the two would be overwhelming. However it may be, palaeography is of no use to us in the present case, and the date of the MSS. will have to be decided differently.

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[1] *Les palimpsestes latins*, in *Annuaire* 1904, *École Pratique des Hautes Études*, p. 7.

[2] *Codices e vaticanis selecti, phototypice expressi iussu Leonis PP. XIII*, Romae 1902, vol. II, p. II f.

[3] *Le Virgile du Vatican et ses peintures*, in *Notices et extraits des manuscrits de la Bibliothèque Nationale et autres Bibliothèques*, vol. XXXV, p. 683 ff.

[4] *Ibid.*, p. 684.

[5] *Das Alter des codex Romanus des Virgil*, in *Strena Helbigiana*, Lipsiae 1900, p. 307 ff.

[6] *Ibid.*, p. 314.

Solinus is based on Pliny. Here we read:[1] "sunt et *uri*, quos inperitum vulgus vocat bubalos, cum bubali paene ad cervinam faciem in Africa procreentur; istis porro quos *uros* dicimus taurina cornua in tantum modum protenduntur, ut dempta ob insignem capacitatem inter regias mensas potuum gerula fiant." This is based on two passages in Pliny: "iubatos bisontes excellentique et vi et velocitate *uros*, quibus inperitum volgus bubalorum nomen inponit, cum id gignat Africa vituli potius cervique quadam similitudine,"[2] and "*urorum* cornibus barbari septentrionales potant urnisque bina capitis unius cornua inplent."[3]

It is clear that in the Pliny passages we should have "iubatos bisontes excellentesque et vi et velocitate *tauros*, quibus," etc., and "*taurorum* cornibus," etc., because we know of no other animal resembling the bison in Germany, and because universally "bubalus" was applied to the bison, as in Venantius Fortunatus and Gregory of Tours. Besides, when we read in Pliny "cum arbore exacuant limentque cornua elephanti et *uri*,"[4] it is not plausible that Pliny did not speak of the *tauri*, since the bison's horns are very short and not used in attack so prominently as those of the *tauri*, of whom Pliny says "cornibus in procinctu dimicationem poscentibus."[5]

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[1] XX. 5.
[2] VIII. 38.
[3] XI. 126
[4] XVIII. 2.
[5] VIII. 181.

When we now turn to Solinus, we at once recognize that "istis porro quos *uros* dicimus" is an interpolation, since the ridiculous tautology "the oxhorns of those whom we call *uri*" is obvious. "*Taurina* cornua" could have arisen only from "*taurorum* cornibus" in Pliny, not from "*urorum* cornibus." Similarly, the statement "quibus inperitum volgus bubalorum nomen inponit," etc., in both is certainly an interpolation, since we have nowhere any record of the presence of the bison in Italy, where the "inperitum volgus" could have called it by that name. The first time such a mistake could have been made outside of patristic literature and learned references was in the year 595, when, as we are told by Paulus Diaconus,[1] the *bubalus* was introduced into Italy. That must have been the Asiatic buffalo, which is still found in the south of Europe, and then and then only could the "inperitum volgus" have confused the two. Before that the confusion, if there was any, was by the "periti docti."

What really happened is this. The lemma in Jerome had, no doubt, the Arab. *tamur* written over "posteriores," which, on account of the following "tam indomiti," was read as "tam *uri*" or "tamen *uri*," thus leading to the ghost word *uri*. When we turn to the Syrio-Arabic glosses, we find a number of times ܝܚܡܘܪܐ يامور و نامور والتامور وجاموس بري, that is, the Syr. *yaḥmūrå* is rendered by Arab. *al-ṭāmūr* or *ǵāmūs barriyy*, the latter meaning literally "bos silvester," for *ǵāmūs* is "buffalo" and *barriyy* "wild." It is clear, therefore, that in the case of the Arabic gloss we have a reference to Jerome's "*bubalus* bos silvester," and to the Syr. ܝܚܡܘܪܐ, which produced Arab. *yāmūr*, *nāmūr*, *ṭāmūr*.

It is, no doubt, in the German *Antiquitas* that *uri* received its full acknowledgment, the name being transferred to the German bison. In the *Liber glossarum*,[1] which is generally ascribed to the middle of the VIII. century, but is probably somewhat later, we have the following entries: De Gls.

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[1] *Historia Langobardorum*, IV. 10, in *MGH., Scrip. rer. lang. et ital.*, p. 120.

Vri Fere humiles boum
Vri Uituli agrestes quos bubalos uocant
Vri Agrestes boues sunt in germania habentes cornua intantum protensa ut regiis mensis insigni capacitate ex eis gerule fiant dic autem uri αποϑονοϱυον, id est, a montibus.[2]

The first two glosses are not found elsewhere, and the third, although given in Isidore, in the *Codex Toletanus*, is not given as from Isidore, but apparently like the other two, "de glossis." The first two are of extraordinary importance, since the reference to "small beasts of oxen" and "wild calves called bubali" shows once more that *uri* stands for *tamuri*, and is nothing but the Biblical יַחְמוּר *yaḥmūr*, which ultimately led to the *antholops*. In any case, in these two glosses the glossators were still on Biblical ground. In *Sangallensis 912* we read "*uros* bos siluaticus,"[3] where the explanation is still that of Jerome, while the lemma has *uros*, instead of "bubalus." While two of the Graeco-Latin vocabularies simply record "*urus* βούϐαλος,"[4] one has "*urus* βοῦς Γεϱμανός,"[5] which coincides with the third gloss in the *Liber glossarum*. That this *urus*, like *camurus* discussed below, was not in the original Vergil is obvious. This is further corroborated by the fact that the *Glossae Vergilianae*,[6] which of all glosses should have had these two strange words, have neither. To make matters worse, the great Vergilian glossary

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[1] *Facsimiles of Parisinus Latin 11530*, ff. 1^{r}-65^{v} and ff. 231^{v}-240^{v}, in the Harvard Library. Unfortunately this goes only from F-L and from Ue-Us.

[2] Fol. 240^{v}.

[3] Goetz, vol. IV, p. 297.

[4] *Ibid.*, vol. II, p. 259, vol. III, p. 258.

[5] *Ibid.*, vol. II, p. 211.

[6] *Ibid.*, vol. IV, p. 427 ff.

Codex Bernensis XVI,[1] which goes from A-E, has neither *camurus*, nor *cornua camura*. Nor is *urus* found in any of the numerous glosses, outside of the two mentioned. This is fatal for the presence of the word in Vergil.

We can now turn to Caesar's *uri*. Here we read: "Tertium est genus eorum, qui *uri* appellantur. Hi sunt magnitudine paulo infra elephantos, specie et colore et figura tauri. Magna vis eorum est et magna velocitas, neque homini neque ferae, quam conspexerunt, parcunt. Hos studiose foveis captos interficiunt. Hoc se labore durant adulescentes atque hoc genere venationis exercent, et qui plurimos ex his interfecerunt, relatis in publicum cornibus, quae sint testimonio, magnam ferunt laudem. Sed adsuescere ad homines et mansuefieri ne parvuli quidem excepti possunt. Amplitudo cornuum et figura et species multum a nostrorum boum cornibus differt. Haec studiose conquisita ab labris argento circumcludunt atque in amplissimis epulis pro poculis utuntur."[2] The latter part of the account, which deals with the use of bisons' horns for drinking purposes, is identical with the account of the horns of the Paeonian bull, and does not refer to Germany, but to Macedonia. We have already seen how the Germanic *urus* arose from Bible glosses. Thus there is nothing left in the story which Caesar could have written. The forgery of this part of the Hercynian Forest is obvious.

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[1] Thilo and Hagen, *op. cit.*, vol. III^2, p. 453 ff.

[2] VI. 28.

IX. THE MONOPS.

There is a passage in the spurious[1] X. book of Aristotle's *De animalibus*, where we have a complete account of the *bonasus:* "The bison is found in Paeonia on Mount Messapium, which separates Paeonia from Maedica; and the Paeonians call it the *monapos.* It is the size of a bull, but stouter in build, and not long in the body; its skin, stretched tight on a frame, would give sitting room for seven people. In general it resembles the ox in appearance, except that it has a mane that reaches down to the point of the shoulder, as that of the horse reaches down to its withers; but the hair in its mane is softer than the hair in the horse's mane, and clings more closely. The colour of the hair is brown-yellow; the mane reaches down to the eyes, and is deep and thick. The colour of the body is half red, half ashen-grey, like that of the so-called chestnut horse, but rougher. It has an under-coat of woolly hair. The animal is not found either very black or very red. It has the bellow of a bull. Its horns are crooked, turned inwards towards each other and useless for purposes of self-defence; they are a span broad, or a little more, and in volume each horn would hold about three pints of liquid; the black colour of the horn is beautiful and bright. The tuft of hair on the forehead reaches down to the eyes, so that the animal sees objects on either flank better than objects right in front. It has no upper teeth, as is the case also with kine and all other horned animals. Its legs are hairy; it is cloven-footed, and the tail, which resembles that of the ox, seems not big enough for the size of its body. It tosses up dust and scoops out the ground with its hooves, like the bull. Its skin is impervious to blows. Owing to the savour of its flesh it is sought for in the chase. When it is wounded it runs away, and stops only when thoroughly exhausted. It defends itself against an assailant by kicking and projecting its excrement to a distance of eight yards; this device it can easily adopt over and over again, and the excrement is so pungent that the hair of hunting-dogs is burnt off by it. It is only when the animal is disturbed or alarmed that the dung has this property; when the animal is undisturbed it has no blistering effect. So much for the shape and habits of the animal. When the season comes for parturition the mothers give birth to their young in troops upon the mountains. Before dropping their young they scatter their dung in all directions, making a kind of circular rampart around them; for the animal has the faculty of ejecting excrement in most extraordinary quantities."[1] A similar account is given in Aristotle's equally spurious Περὶ θαυμασίων ἀκουσμάτων.

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[1] Dittmeyer, *op. cit.*, p. V ff.

Ὁ δὲ βόνασος γίγνεται μὲν ἐν τῇ Παιονίᾳ ἐν τῷ ὄρει τῷ Μεσσαπίῳ, ὃ ὁρίζει τὴν Παιονικὴν καὶ τὴν Μαιδικὴν χώραν, καλοῦσι δ' αὐτὸν οἱ Παίονες μόναπον· τὸ δὲ μέγεθός ἐστιν ἡλίκον ταῦρος, καὶ ἔστιν ὀγκωδέστερον ἢ βοῦς· οὐ γὰρ πρόμηκές ἐστιν· τὸ δὲ δέρμα αὐτοῦ κατέχει εἰς ἑπτάκλινον ἀποταθέν· καὶ τὸ ἄλλο δ' εἶδος

Περὶ θαυμασίων ἀκουσμάτων.

Ἐν τῇ Παιονίᾳ φασὶν ἐν τῷ ὄρει τῷ Ἡσαίνῳ καλουμένῳ, ὃ τὴν Παιονικὴν καὶ τὴν Μαιδικὴν ὁρίζει, εἶναί τι θηρίον τὸ καλούμενον βόλινθον, ὑπὸ δὲ τῶν Παιόνων μόναιπον· τοῦτον λέγουσι τὴν μὲν ὅλην φύσιν παραπλήσιον εἶναι βοῖ, διαφέρειν δὲ τῷ μεγέθει καὶ τῇ

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[1] J. A. Smith and W. D. Ross, *The Works of Aristotle*, Oxford 1910, vol. IV, p. 630.

ὅμοιον βοΐ, πλὴν χαίτην ἔχει μέχρι τῆς ἀκρωμίας ὥσπερ ἵππος· μαλακωτέρα δ' ἡ θρὶξ τῆς τοῦ ἵππου, καὶ προσεσταλμένη μᾶλλον· χρῶμα δ' ἔχει τοῦ τριχώματος ξανθόν· βαθεῖα δὲ καὶ μέχρι τῶν ὀφθαλμῶν καθήκουσα ἡ χαίτη ἐστὶ καὶ πυκνή· τὸ δὲ χρῶμα ἔχει τοῦ τριχώματος μέσον τεφροῦ καὶ πυρροῦ, οὐχ οἷον αἱ παρῶαι ἵπποι καλούμεναι, ἀλλ' αὐχμηροτέραν τὴν τρίχα ἄνωθεν, κάτωθεν ἐριώδη· μέλανες δ' ἢ πυρροὶ σφόδρα οὐ γίγνονται· φωνὴν δ' ὁμοίαν ἔχουσι βοΐ, κέρατα δὲ γαμψά, κεκαμμένα πρὸς ἄλληλα καὶ ἄχρηστα πρὸς τὸ ἀμύνεσθαι, τῷ μεγέθει σπιθαμιαῖα ἢ μικρῷ μείζω, πάχος δ' ὥστε χωρῆσαι μὴ πολλῷ ἔλαττον ἡμίχου ἑκάτερον· ἡ δὲ μελανία καλὴ καὶ λιπαρὰ τοῦ κέρατος· τὸ δὲ προκόμιον καθήκει ἐπὶ τοὺς ὀφθαλμούς, ὥστ' εἰς τὸ πλάγιον παρορᾶν μᾶλλον ἢ εἰς τὸ πρόσθεν· ὀδόντας δὲ τοὺς ἄνωθεν οὐκ ἔχει, ὥσπερ οὐδὲ βοῦς οὐδ' ἄλλο τῶν κερατοφόρων οὐδέν, σκέλη δὲ δασέα· καὶ ἔστι διχαλόν· κέρκον δ' ἐλάττω ἢ κατὰ τὸ μέγεθος, ὁμοίαν τῇ τοῦ βοός· καὶ ἀναρρίπτει τὴν κόνιν καὶ εὐρωστίᾳ, προσέτι δὲ καὶ τῇ χαίτῃ· ἔχει γὰρ ἀπὸ τοῦ αὐχένος, ὥσπερ ὁ ἵππος, κατατείνουσαν βαθεῖαν σφόδρα, καὶ ἀπὸ τῆς κορυφῆς ἕως τῶν ὀφθαλμῶν· τὰ δὲ κέρατα οὐχ ὥσπερ οἱ βόες, ἀλλὰ κατεστραμμένα, καὶ τὸ ὀξὺ κάτω παρὰ τὰ ὦτα· χωρεῖν δὲ αὐτὰ ἡμιχόου πλεῖον ἑκάτερον αὐτῶν, καὶ μέλανα σφόδρα εἶναι, διαστίλβειν δὲ ὡσανεὶ λελεπισμένα· ὅταν δὲ ἐκδαρῇ τὸ δέρμα, κατέχειν τόπον ὀκτακλίνου· ἡνίκα δὲ πληγῇ, φεύγει, κἂν ἐξαδυνατοῦν μένει· ἔστι δὲ ἡδύκρεων· ἀμύνεται δὲ λακτίζον καὶ προσαφοδεῦον ὥς ἐπὶ τέτταρας ὀργυιάς· ρᾳδίως δὲ χρῆται τούτῳ καὶ πολλάκις τῷ εἴδει, καὶ ἐπικαίει δ' ὥστ' ἀποψήχεσθαι τὰς τρίχας τῶν κυνῶν· τεταραγμένου μὲν οὖν τοῦτο ποιεῖν φασὶ τὸν ἄφοδον, ἀταράχου δὲ μὴ ἐπικαίειν· ὅταν δὲ τίκτωσι, πλείους γενόμενοι καὶ συναχθέντες ἅμα πάντες οἱ μέγιστοι τίκτουσι καὶ κύκλῳ προσαφοδεύουσι· πολὺ γάρ τι τούτου τοῦ περιττώματος τὸ θηρίον προΐεται (p. 830a).

ὀρύττει ὥσπερ ταῦρος· δέρμα δ’ ἔχει πρὸς τὰς πληγὰς ἰσχυρόν. ἔστι δ’ ἡδύκρεων, διὸ καὶ θηρεύουσιν αὐτό· ὅταν δὲ πληγῇ, φεύγει καὶ ὑπομένει ὅταν ἐξαδυνατῇ· ἀμύνεται δὲ λακτίζων καὶ προσαφοδεύων καὶ εἰς τέτταρας ὀργυιὰς ἀφ’ ἑαυτοῦ ῥίπτων· ῥᾳδίως δὲ χρῆται τούτῳ καὶ πολλάκις, καὶ ἐπικαίει ὥστε ἀποψήχεσθαι τὰς τρίχας τῶν κυνῶν· τεταραγμένου μὲν οὖν καὶ φοβουμένου τοῦτο ποιεῖ ἡ κόπρος, ἀταράκτου δ’ ὄντος οὐκ ἐπικαίει· ἡ μὲν οὖν ἰδέα τοῦ θηρίου καὶ ἡ φύσις τοιαύτη τίς ἐστιν· ὅταν δ’ ὥρα ᾖ τοῦ τίκτειν, ἀθρόοι τίκτουσιν ἐν τοῖς ὄρεσιν· περὶ δὲ τὸν τόπον ἀφοδεύουσι πρότερον πρὶν τεκεῖν, καὶ ποιοῦσιν οἷον περίβολον· προΐεται γὰρ τὸ θηρίον πολύ τι πλῆθος τούτου τοῦ περιττώματος (p. 630).

The two passages prove conclusively that the ἱππέλαφοι previously mentioned is a later interpolation, for the sentence χαίτην ἔχει μέχρι τῆς ἀκρωμίας ὥσπερ ἵππος of *De animalibus* was before this used in connection with the ἱππέλαφοι; hence it is only necessary to show the spuriousness of the passage, in order to prove the spuriousness of both *bonasus* and ἱππέλαφοι wherever found. We find a reference to the throwing of the excrement by the βόνασος in Aelian and in Antigonus of Carystia. The first writes: «Ζῶόν ἐστι Παιονικὸν, καὶ κέκληται μόνωψ, καὶ ἔοικε ταύρῳ λασίῳ τὸ μέγεθος· οὗτος οὖν, ὃν μόνωπα καλοῦσιν οἱ Παίονες, ὅταν διώκηται, ταραττόμενος ἀφίησι πυρῶδες καὶ δριμὺ ἀποπάτημα, ὡς ἀκούω· ὁπεροῦν εἰ προσπέσοι τῷ τῶν θηρατῶν ἀπέκτεινεν αὐτόν».[1] The second writes: «Τὸν δὲ μόνωτον γίνεσθαι μέν φασιν ἐν Παιονίᾳ, ἐν τῷ ὄρει Μαρσάνῳ· ὀδόντας δὲ τοὺς ἄνωθεν οὐκ ἔχειν, ὥσπερ βοῦν, οὐδ' ἄλλο τῶν δικεράτων οὐδέν· καὶ τἆλλα προσεμφερὲς εἶναι τῷ ταύρῳ· διωκόμενον δὲ, προσαφοδεύειν πόρρωθεν, καὶ τὴν κόπρον, ὅταν πεφοβημένος τοῦτο ποιήσῃ, ἐπικάειν οὕτως, ὥστε τὰς τρίχας ἀπορρεῖν τῶν κτηνῶν· ἂν δ' ἄνευ φόβου τοῦτο ποιήσῃ, οὐδὲν πάσχειν, οὐδὲ βλάπτεσθαι· ὅ δ' ἂν ὀχεύσῃ, καὶ ἔγκυον ποιήσῃ, τούτου πάλιν οὐχ ἅπτεσθαι».[2]

The Aelian passage is obviously an interpolation, since the repetition «καὶ κέκληται μόνωψ» and «ὃν μόνωπα καλοῦσιν οἱ Παίονες» is inconceivable for the lucid style of Aelian. That both are interpolations and forgeries follows from the fact that the account given by them does not refer to the ox or bison, but to a bird, the bustard. Aelian says of the bustard, ὠτὶς, that it alone of all the birds fears the dog, and, because it flies low, hides in swamps and thickets: «Μόνη δὲ ἡ ὠτὶς πέφρικε κύνας, τὸ αἴτιον, βαρεῖαί τέ εἰσι, καὶ σαρκῶν ὄγκον περιφέρουσιν· οὔκουν αὐτὰς αἴρει τε καὶ ἐλαφρίζει τὰ πτερὰ ραδίως· καὶ διὰ τοῦτο ταπειναὶ πέτονται καὶ κάτω περὶ γῆν, βρίθοντος τοῦ ὄγκου αὐτάς· αἱροῦνται, δὲ ὑπὸ τῶν κυνῶν πολλάκις· ὅπερ ἑαυταῖς συνειδυῖαι, ὅταν ἀκούσωσιν ὑλακῆς, ἐς τοὺς θάμνους καὶ τὰ ἕλη καταθέουσι, προβαλλόμεναι ἑαυτῶν ταῦτα, καὶ ρυόμεναι σφᾶς ἐκ τῶν παρόντων, καὶ μάλα εὐπόρως».[3]

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[1] VII. 3.

[2] J. Beckmann, *Antigoni Carystii Historiarum mirabilium collectanea*, Lipsiae 1791, cap. LVIII.

[3] V. 24.

The bustard is in Arabic described by Ad-Damīrī as follows: "Al-Ǵāḥiẓ states that it possesses a treasure in its anus and bowels which always contain thin excrement, and when a hawk persists in pursuing it, it voids it over the hawk, so that all its feathers fall off, in consequence of which it dies. God has verily created its excrement a weapon (of defence) for it. A poet says:

'They left you more voiding thin dung than a bustard
Which has seen a hawk, and more fleeing than an ostrich!

One of its peculiarities is that it is seized as prey but does not itself seek (other birds) as objects of prey."[1] Al-Ǵāḥiẓ wrote in the middle of the IX. century, and his story arose from an extension of the account of the *ibis*, due to an Arabic pun.

The ancients considered the *ibis* as a wise bird, which purged itself by introducing its beak into the anus. "Purgatu autem alvos ibes Aegyptiae curant;"[2] «Αἰγύπτιοι κλύσματα καὶ κάϑαρσιν γαστρὸς οὐκ ἔκ τινος ἐπινοίας ἀνϑρωπίνης λέγουσι μαϑεῖν, διδάσκαλον δέ σφισι τοῦ ἰάματος τοῦδε τὴν ἴβιν ᾄδουσιν».[3] The Arabs called the *otis* حبارى *ḥubārā*, from Cop. *hibōi* "ibis," and confused it with the ibis, as in the Arabic translation of Isaiah, where the Gr. ἴϐις is rendered by this word.[4] But Al-Ǵāḥiẓ or his predecessor could not escape the pun which was current as a proverb, سلح الحبارى, which may mean both "the bustard's dung" and "the bustard's weapon," and so said, "God verily created its excrement a weapon for it.'' Thus arose the Arabic account of the bustard's throwing the dung to save himself. But the account in Aelian V. 24 spoke of the fear the *otis* had of the pursuing dogs. Μόνη ὠτίς used there was taken by the interpolator of Antigonus to be the name of the animal which threw the dung, and this μόνωτος became μόνωψ, μόναπος, μόναιπος in the others. But in the interpolation in Aristotle it is specifically mentioned that the animal does so in order to save itself from the hunting dogs.

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[1] *Op. cit.*, vol. I, p. 505.

[2] Cicero, *De natura Deorum*, II. 50.

[3] Aelian, II. 35. Other references are recorded in Leemans' *Horapollo*, Amstelodami 1835, p. 246.

[4] Bochart, *op. cit.*, vol. II, col. 282.

We can see how the composite error arose of connecting the *bubalus* with the *otis*. Jerome used *ibex* in Job XXXIX. 1, where St. Augustine wrote *tragelaphus*. In the commentary to this passage Olympiodorus wrote «τϱαγέλαφος ἤτοι αἴγαστϱος»,[1] the latter for αἴγαγϱος, as in the Graeco-Latin glosses ''*ibex* αἴγαγϱος,''[2] and this is the ibex. The Hebrew has in this passage יָעֵל *yā'ēl* ''ibex, chamois,'' and we shall soon see[3] that the Arab. *ǵāmūs*, originally the name of the buffalo, became confused with the ibex and chamois and led to Ger. *Gemse*. Thus we have an all around confusion of urus, buffalo, ibex, chamois.

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[1] Migne, *P. G.*, vol. XCIII, col. 412.

[2] Goetz, vol. III, pp. 431, 90.

[3] See p. 94.

X. THE GAMMUS.

The *Glossae graeco-latinae* give “πλατυϰεϱως *gammus*”[1] and the *Hermeneumata vaticana* has “πλατιϰεϱος *gammus.*”[2] In the first, the arrangement is alphabetical and the exact meaning of *gammus* is not ascertainable, except that it deals with a broad-horned animal. In the second, the order αιγαγϱος, μονοϰεϱος, πϱοϐαταγϱιος, πλατιϰεϱος, makes it certain that we are dealing with Arab. جاموس *ǵāmūs*, whatever the precise identification of the animal may be. This is further confirmed by the glosses “tragelafum quem nos dicimus *platoceruum*,”[3] “tragelafus uel *platocerus* elch.”[4] Nonius says: “*camerum*, obtortum: unde et *camerae*, tecta in curvitatem formata. Vergilius Georgicorum lib. III. 55: et *cameris* hirtae sub cornibus aures.” But Nonius is full of interpolations, such as the ridiculous “*tibinos*, a tibiis modos.”[5] The explanation of the gloss is the same as in Macrobius, but in the latter it must be observed that *camuris* is a correction of *camusis*.[6] The same juxtaposition of *camurus* and *camera* is found in Servius,[7] “*camuris* (*cumeris*, *camyris*, *camiris*, *cameris*) id est curvis, unde et *camerae* appellantur,” and in Paulus Diaconus' excerpts from Festus, “*camara* et *camuri boves* a curvatione ex Graeco ϰάμπη dicuntur.” We have in Isidore: “*camerae* sunt volumina introrsum respicientia, appellatae a curvo, καμουϱ enim Graece curvum est,"[1] while "*camuri* boves" is not found there; but in etymologizing for camel, as we have seen, καμουϱ is adduced. Here the very old MS. *K*, marked by Lindsay as of the beginning of the VIII. century, reads *camus*.

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[1] Goetz, vol. II, p. 409.
[2] *Ibid.*, vol. III, p. 431.
[3] *Codex Vaticanus 1468*, *ibid.*, vol. V, p. 517.
[4] *Epinal Glossary*, *ibid.*, p. 396.
[5] Ed. of W. M. Lindsay, Lipsiae 1903, vol. I, p. XXXIX f.
[6] Ed. of F. Eyssenhardt, Lipsiae 1868, p. 373: “vid. fuisse *camusis*.”
[7] Thilo, *op. cit.*, vol. III^1, p. 280.

We turn to the vocabularies. In the excerpts of the *Liber glossarum*[2] we read "*camuris* et uergilius et camuris iste sub cornibus aures" and "*camuris* curuis unde et *camesa* appellatur." Thus we for the third time get an *s* for the *r*. Not a single one of the early vocabularies has the word. It is found only in *Codex Cassinensis 402* as "*camuri* sunt bobes qui introrsus habent cornua conuersa,"[3] which is repeated in a late addition to Servius, "*camuri* boves sunt, qui conversa introrsus cornua habent,"[4] and in Placidus,[5] "*camiris* introrsum respicientibus croce (curue) unde *camiris* cornibus contraria patula dicuntur *camiris* cornua fletibus rotunda, *camuram* curuam," and "*cameram* curuam."[6] Two glosses, in the *Sangallensis 912*[7] and *Amplonianus Secundus*[8] read "*camuribus* (no doubt for *camuri* boues) breuibus cornibus."

The readings "*camuram*, *cameram* curuam" are significant, because this is repeated in an Arabic gloss, "*camura* منكسة معوجة,"[9] literally "a female animal bending the head, crooked," and they show that *camera* arose only as a misreading of *camusa* as *camura*, producing *camera* "chamber." That *camusus*, *camusa* is the original and refers to the chamois, of this there cannot be a ghost of a doubt. In the *Laterculus* of Polemius Silvius *camox* stands after "ibix," which identifies it at once as the chamois. Now, the glosses for *camurus* show that attempts were made to identify *camurus* with an ox-like animal with horns twisted back, and it is clear from the glosses in Servius and the *Liber glossarum* that the *urus* was similarly supposed to be a small, calf-like animal in the Pyrenees, that is, the chamois. As both *urus* and the Arab. جاموس *ǵāmūs* referred to the bubalus of the Bible, a similar attempt was made to identify the *ǵāmūs* with the chamois. This produced OHG. *gamz*, for which Grimm assumed the old form *gamuz* or *gamiz*, and with which he relates Ital. *camozza*, *camozzo*, *camoscio*, Ladin *çamouć*, *çamorza*, *camuotsch*, Piedmont *camossa*, *camoss*, Fr. *chamois*, Prov. *camous*, Port. *camuça*, *camurça*, Span. *camuza*, *gamuza*, Catal. *gamussa*.[1] These forms show that the *camurus*, *camura* of the texts should have been *camusus*, *camusa*, as we have found three times. But *camurus* is given in the vocabularies, not only as the name of "an ox with horns turned back," but also as an adjective meaning "turned back, curved back." This produced, again from *camusus* and not from *camurus*, OFr. *camus*, Ital. *camuso* "snub-nosed," because "retortus" means "thrown, turned back."

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[1] XV. 8.5.

[2] Goetz, vol. V, p. 175.

[3] *Ibid.*, p. 549.

[4] Thilo, *op. cit.*, vol. III^1, p. 280.

[5] Goetz, vol. V, p. 52.

[6] *Ibid.*, p. 11.

[7] *Ibid.*, vol. IV, p. 213.

[8] *Ibid.*, vol. V, p. 275.

[9] C. F. Seybold, *Glossarium latino-arabicum*, Berolini 1900, p. 53. We also have here "*uri* agrestes بقر الوحش," p. 545.

Camurus occurs in Prudentius, *Peristephanon* XII. 53, "tum *camuros* hyalo insigni varie cucurrit arcus," but interpreters have not been able to explain what the passage means, and some large specific glossaries, such as *Valenciennes 413*[2] have no comment to this obscure word and line. We have also Avienus, in his translation of Aratus, II. 428 f., "et ignis utrimque sic *camuris* ardet protractibus, the fire burns from the crooked horns". It is interesting to observe here that Avienus is describing the constellation *Taurus*. This leads to the conclusion that the VIII. century editors slipped this word in from their knowledge of Vergil and the obvious Vergilian borrowings of both. In both, certainly, *camuris* is quite out of place, since all the glosses agree that *camurus* refers to a particular kind of ox, and not to *taurus* in general. We have no manuscripts of Prudentius earlier than the IX. and of Avienus earlier than the X. century, and so it is impossible to tell what stood in the original manuscripts. It is again curious to observe that the three passages in Vergil containing *urus* and *camurus* are all in the *Georgics*, where one would naturally introduce the animal terms from the *Physiologus*. It is certainly remarkable that *camurus*, so persistently glossed in Spain, did not leave a trace behind in any Romance language, while the variant *camusus*, which is based on the Arab. *ǵāmūs*, is found everywhere. This shows that *camurus* remained a book word, while the phonetically more correct *camusus*, derived from living speech, lived on.

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[1] For other forms see E. Rolland, *Faune populaire de la France*, Paris 1906, vol. VII, p. 217 f.

[2] J. M. Burnam, *Commentaire anonyme sur Prudence*, Paris 1910.

Aristotle's description of the bonasus was confused by the Arabs with that of the bison, and it was really this which led to the identification of *camusus* with an ox whose horns are crooked and turn back. Aristotle says of the *bonasus*, «κέϱατα δὲ γαμψά, κεκαμμένα πϱὸς ἄλληλα καὶ ἄχϱηστα πϱὸς τὸ ἀμύνεσθαι,» "their horns are crooked, turned toward one another and useless in defence." Gr. γαμψά would be rendered in Arabic by جمس *ǵams*, which would at once suggest that the *ǵāmūs* "buffalo" or "bison" had crooked horns which were turned back towards one another. The fact that *urus*, *bubalus*, *ǵāmūs* were, on account of the Biblical glosses to *yāmūr*, applied to a variety of animals, the bison, the buffalo, the chamois, did not change the indurated error that *ǵāmūs*, *camusus* referred to an ox-like animal with crooked, inverted horns. Nothing but the Greek original passing through the Arabic could produce such results.

XI. THE BISON.

In the *Hermeneumata montepessulana*, of the IX. century, we read «βούϐαλος *sisu*,"[1] which has greatly puzzled the editors, who have tried to correct it to *uiso*;[2] but the matter is obviously quite different. The *Glossae graeco-latinae* have «βουϐαλος urus *bus siluester*," where one MS. has "bos *silue*," a line above *silue* having apparently been intended for the ending -*ster*. These abbreviations have more than once caused trouble. In this case $\overline{\textit{silue}}$ was read *sisue*, producing the above gloss, "βούϐαλος *sisu*."

In the *Liber glossarum* we have had the glosses, "uri uituli agrestes quos bubalos uocant," and "uri agrestes boues sunt in germania," etc. The first was read "uri uituli, agrestes quos bubalos uocant," and was explained as "uri uituli, whom the rustics call bubalos," or, leaving off "bubalos," as in the last quotation, we get the misunderstanding that the "uri" were called *uituli* by the rustics. If this gloss was so misread in Germany, the natural inference was that *uitulus* was the "German" name for the urus. If *uitulus* is written with a line over it, as was usually the case in quoting a foreign word, we get $\overline{\textit{uitulus}}$, which leads to the assumption that the line stands for an omitted *n*, and *t* and *l* become subject to misunderstandings. If the first is read *s*, the second *t*, we get *visuntus* as the reading for "vitulus," and a Germanic name for the animal is created.

We have, fortunately, a Graeco-Latin gloss which shows what havoc such misreadings play with the vocabularies. There is a Graeco-Latin gloss, "*battulus, uitulus, hatubus* μογιλάλος," where the ASaxon gloss reads, "*balbutus* stom," and similarly "*balbus, uattuus, ualuus* τϱαυλός." We have also the proof that the OHG. word for the bison is a comparatively late introduction. In the *Epinal Glossary* we read "bubalis *uusend*," in the *Corpus Glossary*, "bubalis *weosend*," which are glosses to the lemma "in bubalis" of Amos VI. 13. Here the OHG. glosses read "in bubalis *inuvisuntun* (*vuistun, uuimstun*).[1] We can see that the line above *s* caused one MS. to read *uuimstun*. But the line above *s* also caused the original word, whatever it may have been, to be read *uuisintun, uuisantan*. In any case, this variation shows that a definite word in the language did not exist, or else the glossator would have known what the line above *s* stood for.

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[1] Goetz, vol. III, p. 320.

[2] *Ibid.*, vol. VII^1, p. 274.

The word is not recorded in the *Keronian Glosses*, but the glossary ascribed to Rabanus Maurus slipped the two animals in after "bubum sorbellum" of the *Keronian Glosses*, which is the common gloss "bombum sorbellum" of the Latin glossaries. The glossator misunderstood "bubum" for "bubulum," and wrote "bubulus *uuisunt*" and the stupid "sorbellus *elaho*." The *uuisunt* had become fashionable, although no one knew exactly what it was. Now the oldest glossary containing Amos VI. 13 is the *Codex Sangallensis 299*, where we have "bubalis .i. *vr*^{i}*m*."[2] This was intended as a dative plural of an OHG. *ur* or *uro*, and found its way into the ASaxon *Corpus Glossary* as "uris *urum*." Thus we see that *uuistun* of the other glossaries must come from a fuller explanation of a gloss in which both *bubalus* and *urus* were used. But this brings us back to the *Liber glossarum* and its "uri *uituli* agrestes quos bubalos uocant" and "uri agrestes boues sunt in germania," hence *uuistun* arose from *uitulus*, as indicated above. With other words, it is a ghost word.

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[1] Steinmeyer and Sievers, vol. I, p. 673.

[2] *Ibid.*, p. 671.

But the unfortunate line over the word produced even worse disorders: *uitulus* was not only read *uisuntus* but it was also taken to be a Latin word in *Cod. Clm. 14747*,[1] "visuntus *uúisunt*." It is, no doubt, the contraction *uuisus*, for *uuisuntus*, that produced the Graeco-Latin gloss "βουτραγος *boisos*,"[2] though this could just as easily have arisen from a misreading of *bubalus*, written as *buualus* of the gloss, "uri uituli agrestes quos *bubalos* uocant." In any case the word is a ghost word.

The same *buualus* or *boisos* produced βόνασος, βόλινθος of Pseudo-Aristotle, *bonassus* of Pliny. But *visuntus*, under the influence of the *Bistones* of Thrace, led to Lat. *bisontes*, Gr. βίσοντες. However, Gr. βόλινθος may have similarly arisen from *visuntus* or from a confusion of the two. The OHGerman glosses read "bubalus *uuisunt*, *uuisant*, *wisint*, *wisent*,"[3] but the *Lex Alamannorum* has "si quis *vesontum* (*visontum*, *bisontum*, *bissontum*, *bisantum*, *bissontem*, *bisentum*, *bisitonem*, *bisonem*) bubalum, si cervum, quod brugit, furaverit."[4] This law is merely a literary effort on the Latin glosses "cervus bardit rugit ἔλαφος κράζει,"[5] and "bubalus bos silvester." *Vesontus* and *bubalus* are not two animals, but one and the same, as is evidenced by the constant glosses "bubalus *wisunt*," and so the origin of the law from glosses is made clear.

In Dio Cassius LXXVI. 1.5 we have «βίσωνες (βοῶν τι τοῦτο εἶδος, βαρβαρικὸν τὸ γένος καὶ τὴν ὄψιν).»

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[1] *Ibid.*, p. 801.

[2] Goetz, vol. III, p. 18.

[3] Steinmeyer and Sievers, *op. cit.*, vol. I, pp. 273, 366, 368.

[4] *MGH.*, *Leges*, sect. I, vol. V^1, p. 28.

[5] Goetz, vol. II, p. 294.

This refers to a spectacle in the arena in the year 202. I have already dealt with some interpolations in Dio Cassius.[1] Unfortunately we have no variant readings for this particular passage, and the fact that Zonaras does not quote from Dio Cassius concerning the bison, although he quotes verbatim the passages preceding it and following it, cannot be adduced as a proof of the absence of the quotation in the real Dio Cassius, as the passage omitted is too long to have been entirely absent from the original draft. But the explanation of the meaning of βίσων, and of βίσων alone, and the extremely questionable statement, «βαρβαρικὸν τὸ γένος καὶ τὴν ὄψιν,» show that at least the bison is interpolated here.

Timotheus of Gaza, writing in the XII. century, says «ὅτι ἐστὶ βοῦς βίσων καλούμενος, ὃς ἔχει τὴν γλῶσσαν ὡς σαρκοφάγον· ἔστι δὲ ἀπὸ Βιστωνίδος γῆς».[2] It is assumed that this is an abbreviated statement of Oppian's account of the bison, but the reference to the meat eating of the bison is taken from the account of the meat eating bull of Aethiopia, as quoted in Strabo from Artemidorus, «καὶ ταῦροι δ' εἰσὶν ἄγριοι καὶ σαρκοφάγοι, μεγέθει πολὺ τοὺς παρ' ἡμῖν ὑπερβεβλημένοι καὶ τάχει, πυρροὶ τὴν χρόαν."[3]

In Pliny we find the statement that the Greeks did not mention the *urus* and *bison* in their medical works, "nec *uros* aut *bisontes* habuerunt Graeci in experimentis, quamquam bove fero refertis Indiae silvis."[4] This statement is correct, but it is equally correct for any period up to the VIII. century, and so may have been made much later. In another place in Pliny we read, "paucissima Scythia gignit inopia fruticum, pauca contermina illi Germania, insignia tamen boum

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[1] See my *Contributions*, vol. III, pp. 69, 162.

[2] *Hermes*, vol. III, p. 18.

[3] XVI. 4. 16.

[4] XXVIII. 159.

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ferorum genera, iubatos *bisontes* excellentique et vi et velocitate *uros*, quibus inperitum volgus bubalorum nomen inponit, cum id gignat Africa vituli potius cervique quadam similitudine."[1] It has already been shown that this is an interpolation. Here it is interesting to observe that "uri uituli agrestes quos bubalos uocant" of the *Liber glossarum* arose out of "*uros*, quibus inperitum volgus *bubalorum* nomen inponit, cum id gignat Africa *vituli* potius cervique quadam similitudine." Of course, the statement is impossible for Pliny, since *bubalus* was extremely common in Rome in his time and earlier, by the side of *bubulus*, as an adjective referring to the common cattle. It was only the Bible which introduced *bubalus* as a noun for cattle in the general sense. The transference to an Egyptian animal was only accidental, through the occurrence of the word in the Lausiac History. It was only at the end of the VI. century that, according to Paulus Diaconus, the Asiatic buffalo was seen in Europe, where it was named *bubalus*, *buvalus*, *bufalus*. Hence the statement in Pliny is impossible before the VII. century.

It is extremely doubtful that Gr. βούϐαλις for "gazelle" is genuine in the works in which it occurs. In Herodotus IV. 192, «πύγαϱγοι, ϰαὶ ζοϱϰάδες, ϰαὶ βουϐάλιες,» the latter may be an interpolation, due to the juxtaposition in the Septuagint. The references to βούϐαλις in Arcadius and Hesychius are of no avail, because they are late, and the latter is interpolated. Eustathius, in his scholia to Homer, says: «λέγει δὲ ϰαὶ ὅτι ϰατὰ τὴν δάμαλιν Σοφοϰλῆς ἔφη γηγενῆ βούϐαλιν· ϰαὶ Αἰσχύλος, λεοντοχόϱταν βούϐαλιν νεαίτεϱον».[2] But the gloss is of the XII. century and no other author records these passages from Sophocles and

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[1] VIII. 38.

[2] P. 1625. 43 f.

Aeschylus, and otherwise there is no trace of such a word in the classic authors. In Aristotle βούϐαλος occurs, apparently for "antelope," a line before the doubtful βόνασος is mentioned,[1] and βουϐαλίς is mentioned by the side of ἔλαφος and πϱόξ, apparently again as "antelope;"[2] but the question is whether this is more genuine than βούϐαλος in Aristotle. In the Latin writers only the spurious Ammianus has "in aridis (Aegypti) capreoli vescuntur et *bubali*,"[3] where *bubali* seems to refer to antelopes; but this brings us back to the grazing ox of the Lausiac History. It is most likely, therefore, that Gr. βούϐαλις is due to (in) *bubalis* of Amos VI. 13.

The bison is mentioned in Seneca's *Phaedra*, 64-5: "tibi villosi terga *bisontes* | latisque feri cornibus *uri*." For the latter word a series of supposedly interpolated MSS. read *tauri*. A few lines below this spot several lines are disarranged, which would indicate some tampering in its vicinity. It is impossible to say what stood in the place of *bisontes*. The interpolations or forgeries of Martial are pointed out elsewhere.[4] Here we read the line, "turpes esseda quod trahunt *bisontes*,"[5] although we are informed everywhere that the bison could not be tamed. Again we have "nec rasum cavea latus *bisontis*,"[6] where it is not at all clear why the bison's side should be shaven or bare, when the usual epithet of the animal is "villosus." In his *De spectaculis*[7] we have "illi cessit atrox bubalus atque *bison*," which makes matters rather worse, since so far we have found *bubalus* only as an ox or a gazelle, but that only in Christian times. The adjective "atrox" is inapplicable, except as an extension of "silvester" or "agrestis" of patristic literature. Again, if a *bubalus* and a *biso* are two distinct animals, we have to add to "urus" and "bison" an unknown third. There can be little doubt that in these poems we have VIII. century forgeries. Pausanias calls the Paeonian bull βίσων,[1] which is again impossible, since the Paeonian bull was certainly not the bison, as we have learned from Athenaeus. Hence the least we can say of the passage is that βίσων is interpolated.

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[1] P. 663.
[2] Pp. 515, 516.
[3] XXII. 15. 14.
[4] See p. 200 ff.
[5] I. 104. 8.
[6] IX. 57. 10.
[7] XXIII. 4.

We can now turn to the wretched forgeries of Oppian, where the bison is mentioned. With brazen effrontery the Κυνηγετικά and the Ἁλιευτικά are dedicated to the Antonines, whence it has been argued that they belong to the end of the II. and the beginning of the III. century.[2] The antiquity of the Ἁλιευτικά has been further accepted, because of its mention in Jerome's Commentary to Ezechiel, chap. XLVII: "Et plurimae species, immo genera piscium erunt in mari quondam mortuo. Quos pisces ad dexteram partem jubente Domino extraxit Petrus, et erant centum quinquaginta tres: ita ut prae multitudine eorum retia rumperentur. (Aiunt autem qui de animantium scripsere naturis et proprietate, [qui ἁλιευτικὰ tam Latino, quam Graeco didicere sermone, de quibus Oppianus Cilix est, poeta doctissimus,] centum quinquaginta tria esse genera piscium quae omnia capta sunt ab apostolis, et nihil remansit incaptum, dum et nobiles et ignobiles, divites et pauperes, et omne genus hominum de mari hujus saeculi extrahitur ad salutem.) Quod autem sequitur."[3] It is impossible for Jerome to have used such Latinity as is given by me within brackets, and it may be that all the matter within the parentheses is spurious. Indeed, in Rabanus Maurus' version of the same passage, "de quibus Oppianus Cilix est, poeta doctissimus" is placed in parentheses. A similar interpolation is observable in Athenaeus, I. 22: «οὕτω καὶ ταύτην τὴν τέχνην ἀκριβοῖ μᾶλλον τῶν τοιαῦτα προηγουμένως ἐκδεδωκότων ποιήματα ἢ συγγράμματα, Καικίλιον λέγω τὸν 'Αργεῖον καὶ Νουμήνιον τὸν Ἡρακλεώτην, Παγκράτην τὸν 'Αρκάδα, Ποσειδώνιον τὸν Κορίνθιον, [καὶ τὸν ὀλίγῳ πρὸ ἡμῶν γενόμενον 'Οππιανὸν τὸν Κίλικα.] τοσούτοις γὰρ ἐνετύχομεν ἐποποιοῖς Ἁλιευτικὰ γεγραφόσι.» Here «καὶ τὸν ὀλίγῳ πρὸ ἡμῶν γενόμενον 'Οππιανὸν τὸν Κίλικα» is certainly spurious. Under the year 174 we have, in Jerome's translation of the Chronicle of Eusebius, "Oppianus Cilix poeta cognoscitur, qui Halieutica miro splendore conscribit,"[1] while Syncellus, in the IX. century, says, under the year 165, "M. Aurelio Antonino imperante . . . Oppianus poeta."[2] It has long been observed that these statements are impossible, since the interpolators have mixed up Antoninus Caracalla with Marcus Aurelius. All these interpolations are due to the primary interpolation of the story in the *Historia tripartita*,[3] where it is given in the introduction as being from an address of Sozomenus to Theodosius the Younger, whence it found its way as a preface to the *Ecclesiastic History* of Sozomenus,[4] where we read: «Οἷον δὲ σεαυτὸν περὶ τοὺς λέγοντας παρέχεις, οὐ τοιοῦτοι Κρητῶν οἱ πάλαι ἐγένοντο περὶ τὸν ἀοίδιμον ἐκεῖνον Ὅμηρον, ἢ 'Αλευάδαι περὶ Σιμωνίδην, ἢ Διονύσιος ὁ Σικελίας τύραννος περὶ Πλάτωνα τὸν Σωκράτους ἑταῖρον, ἢ Φίλιππος ὁ Μακεδὼν περὶ Θεόπομπον τὸν συγγραφέα, καὶ Σευῆρος ὁ Καῖσαρ περὶ 'Οππιανὸν, τὸν ἐν τοῖς μέτροις τῶν ἰχθύων τὰ γένη καὶ τὴν φύσιν καὶ τὴν θήραν ἀφηγησάμενον· Κρῆτες μὲν γὰρ ἐν χιλίοις νομίσμασιν Ὅμηρον ἀμειψάμενοι τῆς εὐεπείας, ὡς ἀνυπέρβλητον φιλοτιμίαν αὐχοῦντες, ἐν στήλῃ δημοσίᾳ τὴν δωρεὰν ἐγράψαντο· Ἀλευάδαι δὲ καὶ Διονύσιος καὶ Φίλιππος, οὐκ ἂν στεγανώτεροι Κρητῶν ἐγένοντο· τῶν ἐπὶ πολιτείᾳ ἀτύφῳ καὶ φιλοσόφῳ σεμνυνομένων· ἀλλὰ τάχος ἂν τὴν ἐκείνων στήλην ἐμιμήσαντο, εἰ μὴ κατόπιν ἦσαν τῇ δωρεᾷ. Σευῆρος δὲ μετρίας ποιήσεως χρυσοῦν κατὰ στίχον Ὀππιανῷ δωρησάμενος, οὕτω τῇ φιλοτιμίᾳ κατέπληξεν, ὡς χρυσᾶ ἔπη τὰ Ὀππιανοῦ εἰς ἔτι νῦν παρὰ τοῖς πολλοῖς ὀνομάζεσθαι».[1]

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[1] X. 13. 1–3.

[2] G. Bürner, *Oppian und sein Lehrgedicht vom Fischfang*, Bamberg 1912.

[3] Migne, *P. L.*, vol. XXV, col. 474.

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[1] *Ibid.*, vol. XXVII, col. 629.

[2] *Ibid.*, *P. G.*, vol. CVIII, col. 1199.

[3] See my *Contributions*, vol. III, p. 30 ff., where it is shown that the *Historia tripartita* is interpolated.

[4] Migne, *P. G.*, vol. LXVII, col. 843 ff.

If, in spite of this, there was an Oppian who wrote the Κυνηγετικά and another Oppian who wrote the Ἁλιευτικά in the beginning of the III. century, the works which have come down to us are VIII. century forgeries, as will now be shown.

In the Κυνηγετικά we read of the wild oxen called *bistones*, so called from Bistonis in Thrace. They shake their shaggy manes about their fat necks and soft chins, just like yellow royal lions. Their sharp hook-like horns do not incline against each other as in other animals, but the bloody goads supinely look up to heaven. Their tongues are narrow and very rough, like an iron file, and they draw blood from the skin, which they lick.

«Ἔστιν ἀμαιμάκετον φονίοις ταύροισι γένεθλον, | τοὺς καλέουσι Βίστωνας, ἐπεὶ πάτρης τελέθουσι | Βιστονίδος Θρήκης, ἀτὰρ ἔλλαχον εἴδεα τοῖα· | φρικαλέην χαίτην μὲν ἐπωμαδὸν αἰθύσσουσιν | αὐχέσι πιαλέοισι καὶ ἀμφ' ἀταλοῖσι γενείοις, | οἷά τε λαχνήεντες, ἀριπρεπὲς εἶδος ἔχουσι | ξανθοκόμοι. βλοσυροὶ, θηρῶν μεδέοντε Λέοντες· | ὀξεῖαι κεράων δὲ πυριγλωχῖνες ἀκωκαὶ, | χαλκείοις γναμπτοῖσιν ἐπείκελοι ἀγκίστροισιν· | ἀλλ' οὐχ ὡς ἑτέροισιν ἐναντίον ἀλλήλοισι | νεύουσι στυγερῶν κεράων ἐπικάρσιον αἰχμήν· | ὕπτια δ' εἰσορόωντα πρὸς αἰθέρα φοίνια κέντρα· τοὔνεκεν ὁππότε κέν τιν᾽ ἐπιχρίμψωσι κιχόντες | ἢ βοτὸν, ἤ τινα θῆρα, μετήορον ἀείρουσι· γλῶσσα δὲ τοῖς στεινὴ μὲν, ἀτὰρ τρηχεῖα μάλιστα, | οἷα σιδηροβόροιο πέλει τέχνασμα σιδήρου· | γλώσσῃ δ᾽ αἱμάσσοντες ἀπὸ χρόα λιχμάζουσι».[1]

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[1] *Ibid.*, col. 845 f.

I have already shown that the rough tongue of the bison is borrowed from Strabo's sarcophagous Ethiopian bull. But the turned-back horns are due to the same confusion which produced *camurus* in the *Georgica*,[2] and hence is post-Arabic. The Arab. *ǵāmūs* is in the Κυνηγετιγά split up into three animals, the second being the εὐρυκέρως, which corresponds to the *platyceros* of the glosses, the third being, as before, the *bubalus*. The *bubalus* is smaller than the εὐρυκέρως. It, too, has horns which are turned back, and loves its home inordinately. If it is taken a distance away, it ultimately finds its way back home.

«Βούβαλος αὖτε πέλει μείων δέμας Εὐρυκέρωτος· | μείων Εὐρυκέρωτος, ἀτὰρ Δόρκου μέγ᾽ ἀρείων· | ὄμμασιν αἰγλήεις, ἐρατὸς χρόα, φαιδρὸς ἰδέσθαι, | καὶ κεράων ὀρθοὶ μὲν ἀπὸ κρατὸς πεφύασι | ἀκρέμονες προτενεῖς, ὑψοῦ δ᾽ αὖθις ποτὶ νῶτον | ἄψορρον νεύουσι παλιγνάμπτοισιν ἀκωκαῖς. | ἔξοχα δ᾽ αὖ τόδε φῦλον ἑὸν δόμον ἀμφαγαπάζει | ἠθαλέας τ᾽ εὐνὰς φίλιόν τε νάπαισι μέλαθρον· εἰ δέ τέ μιν στρεπτῇσι πεδήσαντες βροχίδεσσιν | ἀγρευτῆρες ἄγοιεν ἐπ᾽ ἄλλους αὐτίκα χώρους, | τηλόθι δ᾽ ἐν βήσσῃσιν ἐλεύθερον αὖθι λίποιεν, | ῥεῖα ποτὶ γλυκερὸν δόμον ἤλυθεν, ᾗχι ναίεσκεν, | οὐδ᾽ ἔτλη ξεῖνός τις ἐπ᾽ ἀλλοδαποῖσιν ἀλᾶσθαι· | οὐκ ἄρα τοι μούνοισι φίλη πάτρη μερόπεσσι· | καὶ βαλίων δὲ πόθος τις ἐνέστακται φρεσὶ θηρῶν».[3]

The description of the βούβαλος even more closely resembles the Arabic *ǵāmūs*, for of this Ad-Damīrī says: "It is sagacious, for if the pastor calls out to one of the she-buffaloes, 'O such a one,' the one that is called comes to him. It is a part of its nature to yearn much for its native place, and it is said that it never sleeps at all, owing to its great watchfulness on its own account and that of its young ones."[1] It is clear that Oppian could not have written about the βούϐαλος before the Arab. *ǵāmūs* found its way into the *Physiologus*. Similarly, the *antholops* of the *Physiologus* becomes the βουϐαλίς in the Ἁλιευτικά:

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[1] II. 159–175.
[2] See p. 78.
[3] II. 300–314.

"The Lybian *Buffal* thus, while o'er his Eyes
  The Shrubs entwine their gloomy Shade, defies
The Lion's stern Approach; with Head reclin'd
  Stupid he stands, and hopes th' Invader blind
In his own Want of Sight: the royal Beast
  Leaps on his Prey, and tears the bloody Feast.
He thrusts his Forehead deeper in the Brake,
  And ev'n in Death approves the gross Mistake."[2]

Here, again, the evolution of the βουϐαλίς, out of the Esopic stag, into an animal that gets caught in the branches, because it likes to play there,[3] shows conclusively that the Ἁλιευτικά, as well as the Κυνηγετικά, was based on VIII. century sources. There is no escape from the conclusion that Oppian is a myth, even though fragments of this work are already recorded in an Egyptian papyrus.[4] B. P. Grenfell[5] says that it is "a fourth century fragment," but W. Schubart more cautiously says, "*etwa* aus dem 4. Jahrhundert," and the tendency towards a cursive indicates a much later time.

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[1] *Op. cit.*, vol. I, p. 399.

[2] J. Jones, *Oppian's Halieuticks of the Nature of Fishes and Fishing of the Ancients*, Oxford 1722, Part II, IV. 771–778; in the original, IV. 624–629.

[3] «Τῆς δ' ἦτορ ὁμοίϊον, οὐδὲ κάρηνον| ἀγκλίνει, δοκέει δὲ καὶ ὀλλυμένη περ ἀλύξαι,» IV. 628 f.

[4] *Berliner Klassikertexte*, vol. V,^{1} p. 80 f.

[5] *Journal of Hellenic Studies*, vol. XXXIX, p. 23.

XII. THE PHILOLOGICAL HISTORY OF THE PEARL.

There is a root *muk* or *mun* in the Dravidian languages meaning "before, in front of," which is of extraordinary dissemination in the Asiatic and European languages, and is sporadically found in the Indo-European and Semitic languages. We have Kan. *muk* "the front, the nose," *mūgu* "the nose, forepart, snout, bill or beak, nozzle of a vessel," *mun* "that which is before, in front of, or preceding in space or time, that which is following," *mundu* "the front part or side, the state of being in front or anything that is behind, following, succeeding, the state of being future," *munna* "the front, in front, before, formerly, previously, first of all, prior to, following, henceforth, after," *mone* "a point, an extremity, an end, the state of being before or preceding, an affray, fight, battle," *monne* "the day before yesterday, lately," *muń* "that which is before, in front of," *muńkanisu* "to advance, proceed, stretch forth," *muńču* "a man of the front, chief, leader, to be or go before or first, go beyond, exceed, outdo, surpass, excel," *muńce* "in advance, in the first place, previously, formerly, first, before, earlier than," *mum* "that which is before, at a previous time," *mumbu* "the forepart, vanguard, the state of being previous," *musuḍu*, *musuli*, *mūti*, *mōr̤i* "the face, mouth, snout, muzzle, the nose or nostrils of a horse," *mū* "the nose," *modal* "the state of being first, in front, prior, the root, base, extremity, tip;" Tam. *mutal* "the first, beginning, to become first," *mutir* "to grow old, become mature, exceed, excel, surpass," *mutu* "old, ancient, original," *muntu* "to take precedence, be prior in time, origin, dignity, rank, to meet, come in front," *munta* "previously, formerly, first," *mun* "before, antecedent, previous, beyond, future, side, antiquity;" Malayal. *mu* "before, in front, chief," *mūkka* "to grow old, ripen, culminate," *mūkku* "the nose," *muńńi* "the face," *mudal* "the beginning, chief person, cause, since, from," *mudiruga* "to grow up, become mature," *mudu* "old, prior, stronger upper part of animals, the back," *muna* "a sharp point, promontory," *muni* "going before, excited," *mun* "priority in space or time, first, former, before;" Tul. *mum* "before, in front," *muṅgei* "the fore arm, elbow," *mundaṇa* "priority, first, prior, future," *mūku* "the nose, bill, beak," *mūke* "a man who snuffles or speaks through the nose," *muganu* "the front," *muppu* "old, aged," *mūla* "a root, origin, commencement, main, principal," *munda* "the front, before, in former times, in future," *muṭṭe* "the beak, bill, snout, kernel of a nut," *muduru* "to be mature, arrive at the period of full growth."

This basic root is represented in Polynesian *mua*, Maor. *mua* "the front, forepart, former time, origin," Sam. *mua* "the first, the shout of victory," Tah. *mua* "first, foremost, before, headquarters of the chiefs, sacred places," *omua* "a leader," *muraa* "before, in former time," etc. It is found in Japanese: *mukaba* "the front teeth," *mukaeru* "to go out to meet," *mukai* "the opposite place," *mukamomo* "the front of the thigh," *mukashi* "ancient, old," *mukau* "to face, front, stand opposite," *muki* "the direction or frontage, fitness, suitableness," *muku* "to turn the face towards, to be fit or suitable, being pure or unalloyed."

Chin. *mien* "the face, countenance, front, plane, surface," *muh* "the eye, chief," are unquestionably both derived from the same root, which is represented in Chin. *moh*, old pronunciation *mah*, "the tip of a branch, end, last." This is shown in Annamese *mat*, which, with varying accents, means "the tip of a branch, face, eye," each of them formed with the same determinative of pronunciation. This is shown still better in the Malayo-Polynesian languages, where *mata* "a point, extremity" combines all these meanings:[1] Sam. *mata* "the eye, face, point, edge, source," Fiji *mata* "the eye, face, front," etc.[2]

In the Tatar languages[3] we have the group *mañ*, *meñ* "in front, above, first," such as Yak. *mañnai* "first beginning," Čag. *mañlai* "front part of body, brow," Kir. *manap* "chief, old man," etc. But in most cases the root in Tatar has passed over to a form *bur*, Čag. *borun* "at first," *borun*, *burun*, *murun* "protruding part, nose, promontory," Osm. *burun* "nose, promontory," Yak. *barin* "some time ago," *murun* "nose."[4] That the Ugro-Finnish languages in Europe originally had a form *mur* or *muk* for this is shown by Basque *moko* "beak,[5] point, extremity," which is preserved in Fin. *nokka* "beak, nose, snout, front of a thing."

In the Indo-European languages it is only Sanskrit which has a full set of derivatives from this root, while the words get more and more scarce as we proceed westwards, which would indicate that the original Indo-European language had no such root, and that it is borrowed from the neighboring tongues. Sansk. *mukha* "mouth, face, beak of a bird, snout or muzzle of any animal, direction, looking towards, facing, forepart, head, top, chief, best, most excellent," is clearly derived from Drav. *muk*. There can be little doubt that *muńćati* "to loose, let go, set free, emit, discharge" is similarly derived from the Dravidian root, even as Lat. *mungere* cannot be separated from *mucus*, and this from Gr. μυκτήρ "nose, nostril." In the Avesta the "nose" word is completely lacking, through we have *paitimaoc* "to put on," from which it follows again that Sansk. *mukha* is an innovation. The few Greek and Latin "nose" words of this type are to be explained as borrowings from European non-Arian languages.

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[1] This connection between Polynesian *mata* and *muka* was already suggested by E. Tregear, *The Maori-Polynesian Comparative Dictionary*, Wellington, N. Z., 1891, p. 257, at the end of *mua*.

[2] See the enormous mass of related words in Tregear, *op. cit.*, p. 220 ff.

[3] H. Vámbéry, *op. cit.*, p. 214.

[4] *Ibid.*, p. 200.

[5] R. Cruel (*Die Sprachen und Völker Europas vor der arischen Einwanderung*, Detmold 1883, p. 33) long ago observed that the original meaning of this word was "something protruding."

It is not my purpose to give an exhaustive account of this interesting group, which would need a separate volume, but only so much of it as is necessary in order to establish the universality of the basic *muk* words, in their primitive sense of "in front." We can now pass over to the Semitic languages, where it will be observed that only in the neighborhood of the Dravidians, that is, in Assyria, do we have the full contents of the "in front" words, while at the periphery only fragments of them subsist, once more bearing proof to the Asiatic origin of the group.

Prak. *muhallao*, Hind. *muhrā*, *mohra* "the front, van," as well as the Dravidian Gondi *massor* "nose," indicate that a derivative stem of *muk* also existed. This is shown in the Assyrian borrowing from a Hindu or Dravidian word, namely *maḥru* "front, before, former time," *maḥrū* "at the head, first, former," *maḥāru* "to be opposite, equal, to meet, implore, accept, be at the head," *maḥīru* "price," *miḥirtu* "opposite, front," *miḥru* "fitting, corresponding." The other Semitic languages have but the bare skeletons of this set, Syr. ܡܗܰܪ *mahar* "be taught," ܡܰܗܪܳܐ *mahrå* "money paid for a bride," Heb. מָהַר *māhar* "to hasten away, obtain by paying the price," מֹהַר *mohar* "price paid for a bride," Arab. مهر *mahara* "he gave the woman a dowry," مهر *mahr* "dowry, nuptial gift."

From the idea of "opposite," which evolves out of "in front," we get the meaning "reflection, print, seal." This is found in Pers. *muhr*, *muhur* "a seal, a mark branded on cattle" and *muhra* "a kind of small shell resembling pearls, concha veneris, glass beads, shell used for giving a smoothness and glossiness to paper, an iron or bone polishing instrument." This has changed into Sansk. *mudrā* "seal, type, token, image," which has reentered into Dravidian and other languages.

This shows that for the idea "pearl" we may expect a root which originally means "in front," then "excelling, shining." Therefore the Dravidian "pearl" words, Kan. *muttu*, Tam. *mutta*, *muttu*, etc., are certainly derived from the "in front" root, which, for the specific purpose, was *muhr*, or something like it, as evidenced by the Persian. Indeed, we have Malayal. *muru* "oyster," in which the original form seems to be preserved. The Sanskrit has a form, very much like the Dravidian, *mutya;* but by far more popular, it seems, from the fifth century A. D. on, was *mukta*, as though it meant "the liberated, separated one."

The Sanskrit name of the pearl oyster is *muktāgāra*, from *muktā* "pearl" and *agāra* "abode." Sansk. *agāra* is late and rare, and the origin of the word is unknown. It is unquestionably of Dravidian origin, where we have some *gar-* words for "abode," such as Kan. *garuḍi*, *garaḍi* "abode, place or resort," Tul. *garāḍi* "veranda, shrine," also Marathi *gharaṭā* "bird's nest, house-site, a hole in which a body might lodge." All these are already represented in Vedic *karta*, later *garta* "hole, cavity," Marathi *khaḷagā*, and a large number of other words in the Dravidian languages, all of which ultimately go back to Kan. *agarte*, *agate*, *agalte* "digging, ditch," and this from a root *agi*, *age* "to dig, make a hole in the ground." There can be little doubt, therefore, that Gr. μάϱγαϱος represents a Hindu compound, of which the first part means "pearl," the second, "shell." The precise Hindu vernacular from which the Greeks derived the word is not ascertainable, but it must have been one on the west coast of India, in the neighborhood of the pearl fisheries in the Persian Gulf.

In Greek there are recorded the forms μάϱγαϱος, μάϱγαϱον, μάϱγαϱα, μαϱγαϱίτης, μαϱγαϱίς, while the Latin has only *margarita*. The Syriac has formed, from the Greek, ܡܪܓܠܝܛܐ *margalīṭå*, ܡܪܓܳܢܺܝܛܐ *margånīṭå*, while the Talmud has מַרְגָּלִית *margāliṭ*, מַרְגָּנִיתָא *margānīṭā*, which have also the meaning "jewel, diamond," to which must also be added מַרְגָּלִי *margālī*, מַרְגָּלִיטִים *margālītīs*. From the Syr. *margånītå* comes Arab. مرجان *marǵān*, also *murǵān*, which later acquired the meaning "coral."

The universality of *margarita* is due exclusively to the Graeco-Roman rule in Palestine and Syria, for the Semitic languages possess a number of terms for the pearl, some of them of great antiquity. Thus the Arabs have درة *ḍurrah*, لؤلؤ *lu'lu'*, جوهر *ǵauhar*. The latter is of interest to us, since it produced the "jewel" words in the European languages. It is not an old word, since it is derived from Pers. *gōhar* "jewel, matter, origin," which is itself from Pehl. *gōhr*, and this from Sansk. *gótra* "origin, race." In Ingulfus we find for the first time LLat. *jocalia* "jewel," and this is unquestionably for *jocaria* from Arab. جوهر *ǵauhar*.

Another word for "jewel, pearl" was introduced into Spain by the Arabs, but has entirely disappeared from the Arabic language. We have in Coptic *kašabel* "earring, pearl, brass ornament." What it really was, appears from a comparison of the word in several Semitic languages. We have Arab. حشل *ḥašl* "an egg with the contents removed," and محشّل *muḥaššal* "adorned with a necklace," which presupposes a meaning "bell-shaped trinket" for حشل *ḥašl*. Indeed, we have Syr. ܚܶܫܠܬܳܐ *ḥešlṭå* "an ornament from a beaten metal, a woman's ornament," in modern Syriac "jewelry," and Talm. חָשַׁל *ḥašal* "to hammer." This is preserved in Span. *cascabel* "sleigh bell, small round brass bell, with a little clapper inside." Copt. *kašabel* indicates an Arabic plural حشول *ḥašwal*, from حشل *ḥašl*, but the Coptic is not a borrowing from the Arabic. It is a reminiscence of Egyp. *ḥsmn* "electrum,"[1] which is found in the Bible as חַשְׁמַל *ḥašmal*. In Syriac this became confused with the root which is already found in Assyrian as *ḥašālu* "to crush," hence in Syriac it assumed the meaning "to hammer metal." For the same reason the Arabic word which produced Span. *cascabel* was merged into the verb حشل *ḥašl* "to reject as base and worthless."

It is still necessary to show that Eng. *pearl* is derived from Lat. *beryllus*.

"Beryls, it is thought," says Pliny, "are of the same nature as the smaragdus, or at least closely analogous. India produces them, and they are rarely to be found elsewhere. The lapidaries cut all beryls of an hexagonal form; because the colour, which is deadened by a full uniformity of surface, is heightened by the reflection resulting from the angles. If they are cut in any other way, these stones have no brilliancy whatever. The most esteemed beryls are those which in colour resemble the pure green of the sea. . . In addition to the defects already mentioned, and which are pretty nearly the same as those to which the smaragdus is subject, beryls are affected with cloudy spots, like those on the finger-nails in appearance."[1] The defects of the smaragdus are described as follows: "It will be only proper, too, seeing that the prices of these stones are so exorbitant, to point out their defects. Some defects, no doubt, are common to all of them, while others, again, like those found in the human race, are peculiar only to those of a certain country. Thus, for example, the stones of Cyprus are not all green alike, and in the same smaragdus some parts are more or less so than others, the stone not always preserving that uniform deep tint which characterizes the smaragdus of Scythia. In other instances, a shadow runs through the stone, and the colour becomes dulled thereby; the consequence of which is, that its value is depreciated; and even more so, when the colour is thin and diluted.

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[1] A. Erman, *Das Metall ḥsmn*, in *Zeitschrift für ägyptische Sprache und lAterthumskunde*, vol. XXX, p. 31 ff.

"In consequence of the defects in these stones, they have been divided into several classes. Some of them are obscure, and are then known as 'blind' stones; some have a certain density, which impairs their transparency; others, again, are mottled, and others covered with a cloud. This cloud, however, is altogether different from the shadow above mentioned; for it is a defect which renders the stone of a whitish hue, and not of a transparent green throughout; presenting, as it does, in the interior or upon the surface, a certain degree of whiteness which arrests the vision. Other defects, again, in these stones, are filaments, salt-like grains, or traces of lead ore, faults which are mostly common to them all.

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[1] Bostock and Riley's translation. "Eandem multis naturam aut certe similem habere berulli videntur. India eos gignit, raro alibi repertos. Poliuntur omnes sexangula figura artificum ingeniis, quoniam hebes unitate surda color repercussu angulorum excitetur. Aliter politi non habent fulgorem. Probatissimi ex iis sunt qui viriditatem maris puri imitantur. . . Vitia praeter iam dicta eadem fere, quae in smaragdis, et pterygia," XXXVII. 76, 79.

"Next after the kinds above described, the smaragdus of Aethiopia is held in high esteem; being found, as Juba tells us, at a distance of twenty-five days' journey from Coptos. These are of a bright green, but are seldom to be met with perfectly clear or of an uniform colour. Democritus includes in this class the stones that are known as 'herminei,' and as 'Persian' stones; the former of which are of a convex, massive shape, while the latter are destitute of transparency, but have an agreeable, uniform colour, and satisfy the vision without allowing it to penetrate them; strongly resembling, in this respect, the eyes of cats and of panthers, which are radiant without being diaphanous. In the sun, he says, they lose their brilliancy, but they are radiant in the shade, the brightness of them being seen at a greater distance than in the case of other stones. One other fault, too, in all these stones is, that they often have a colour like that of honey or rancid oil, or else are clear and transparent, but not green."[1]

All the later writers quote Pliny and elaborate upon him.[2] From all the sources it becomes clear that the beryl, like the emerald, was considered only second to pearls in value,[1] that it was chiefly esteemed for its sea-green brilliancy, that in its natural state it was "blind," that is, did not reflect the sun's rays, and that the eyes of certain wild animals, such as the panther, emitted a bright light not unlike that of the beryl.

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[1] XXXVII. 67–70, in Bostock and Riley's translation.

[2] "Beryllos in sexangulas formas Indi atterunt, ut hebetem coloris lenitatem angulorum repercussu excitent ad vigorem. Beryllorum genus dividitur in speciem multifariam: eximii intervirente glauci et caeruli temperamento quandam praeferunt puri maris gratiam," Solinus, LII. 61. "Beryllium lapis glauci, id est caesii, coloris est, marinae tincturae similis et aeris, amethysti et paederotis habens speciem et aquatioris, id est albidioris, hyacinthi. Fit autem ad ima montis, qui uocatur Taurus. Si quis autem uoluerit hunc ex aduerso solis opponere, uidetur ueluti uitrei minuta intrin-

The Greeks employed the word βήρυλλος for a gem which evidently was identical with the beryllus of the Latin writers, and it has been assumed that it represents Sansk. *vaiḍurya*, or, more correctly, Pali *veḷuriya*.[2] Although Böhtlingk gives the meaning of beryl for *vaiḍurya*, other Sanskrit dictionaries identify it with the lapis-lazuli, and this is the usual rendering for the

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secus habere perlucida. Alia autem beryllus pupillis oculorum draconis est similis. Alia rursus est beryllus ueluti coralli speciem magis exhibens. Haec autem beryllus iuxta uiam Eufratae fluminis uisa est," Epiphanius, *De XII gemmis rationalis*, in *CSEL.*, vol. XXXV, p. 755. "Beryllus est, quasi consideres aquam solis fulgore percussam rubicundum ac decorum reddere colorem: sed non fulget nisi in sexangulam formam poliendo figuretur. Repercussu enim angulorum splendor illius acuitur. Significat autem homines quidem ingenio sagaces, sed amplius supernae gratiae lumine refulgentes," Rabanus Maurus, *De universo*, in Migne, *P. L.*, vol. CXI, col. 468. "Conspicuos reddit sexangula forma beryllos. | Qui nisi fiat hebes, his pallor inesse videtur. | Eximios oleo similes lymphaeve marinae | Esse volunt, et eos probat horum gnara vetustas. | Hic lapis ad nostras partes descendit ab Indis. | Hic est conjugii gestare refertur amorem, | Et se portantem perhibetur magnificare. | Dicitur et sese stringentis adurere dextram. | Infirmis oculis in qua jacet unda medetur, | Potaque ructatus simul et suspiria tollit. | Hepatis et cunctos fertur curare dolores. | Istius esse novem species voluere magistri," Marbodus, *ibid.*, vol. CLXXI, col. 1747. "Beryllus lucet quasi aqua sole percussa, et calefacit manum tenentis," *ibid.*, col. 1774. "Beryllus lapis est magnus et lucidus. Sculpe in eo locustam marinam et sub pedibus ejus corniciam, et sub gemma pone herbinam modico auro inclusam consecrata gestato esse malorum omnium victorem facit, et ad oculorum vitia omnem valetudinem tribuit. . Invenitur in India similis Smaragdo, sed cum pallore," *ibid.*, col. 1775. "Beryllus in India gignitur, gentis suae lingua nomen habens, viriditate similis smaragdo, sed cum pallore. Politur autem ab Indis in sexangulas formas, ut hebetudo coloris repercussu angulorum excitetur; aliter politus non habet fulgorem," Isidore, *Etymologiae*, XVI. 7. 5.

[1] "Next in esteem with us are the pearls of India and Arabia. . . The third rank, for many reasons, has been given to the smaragdus," "proximum apud nos Indicis Arabicisque margaritis pretium est. . tertia auctoritas smaragdis perhibetur pluribus de causis," Pliny, XXXVII. 62.

[2] O. Franke, *Beziehungen der Inder zum Westen*, in *Zeitschrift der deutschen morgenländischen Gesellschaft*, vol. XLVII, p. 600.

allied words in the vernaculars of India. We have Marathi *vaidugra*, Hindustani *vaidūrya*, Singhalese *weḷūriya*, Canarese *vaiḍūrya*, *vāyaja;* but most interesting is Gujarati *rājāvaral*, obviously a compound of *varal* and *rāja*, hence "King-beryl," because it lies at the foundation of Behar *lajhurud*, Pers. *lajwārd*, which, in its turn, produced Arab. *alazward*, from which ultimately comes our *lapis-lazuli.*

Vaiḍurya obviously was the name of a number of gems, but more especially of the lapis-lazuli. Even as in India the beryl, or at least the word for it, was confounded with the lapis-lazuli, so the beryl in the West designated a variety of gems. In Syriac ܒܶܠܽܘܪܳܐ *belūrå* refers to the beryl, but ܒܶܪܽܘܠܚܳܐ *berūlḥå* means "pearl, crystal, gemma alba splendida." Similarly, the Chaldaic has בִּירְלָא בוּרְלָא *būrlā*, *bīrlā* for some kind of white gem, a pearl, but more generally, a beryl. Arab. بلور *ballūr*, *billaur*, *bulūr*, which has also entered into Persian and other Oriental languages, means both "beryl" and "crystal."

In the early Mediaeval Latin glosses the beryl is conceived merely as a kind of shining or white stone:

Berillus genus lapidis, *Vat. 3321.*

Berolus genus gemmae, *berillus* saxi candidi genus, *Aff.*

Berulus genus gemme, *birillus* tantum ut aqua splendet, *Ampl. I.*

Berillus genus lapidis canditi, *Sang. 912.*

Berillus genus lapidi candidi, *Amb.*

Berillus genus lapidis candidi, *Ab. maj.*

Berulus genus saxi candidi, *Ampl. II.*

Berillus lapis tantum ut aqua splendit, *Abac.*

Byrillus tamen ut aqua resplendit, *Leyd.*

Birillus ut aqua splendet, *berulus* geminae genus, *Cant. Coll. Corp. Chr.*

The reference to the beryl's shining like water is, of course, taken from Pliny, "probatissimi ex iis sunt qui viriditatem maris puri imitantur,"[1] while its being like a white stone has evolved from the idea of its brilliancy. No definite idea can be formed from these glosses as to which gem was really meant by the word. The Keronian and Hrabanian glosses repeat the Latin definition.

Berillus genus saxi candidi (Steinmeyer and Sievers, vol. I, p. 54), which is identical with the definition for the crystal,

Cristallum genus saxi candidi (*ibid.*, p. 88), but which in the Hrabanian gloss appears as

Cristallus lapis splendidissimus.

The beryl and crystal are confused and the stone is called white or *splendidus* "brilliant." In the *Codex S.Galli 299*, of the IX. or X. century, *berillus* is translated by *berala* (*ibid.*, vol. II, p. 264), which at once shows that the German word is derived from the Latin; but the glosses "margaritis *berulon*" (*ibid.*, p. 76), "lapillis, i. margaritis unionibus, *berre*" (*ibid.*, p. 77), "uniones *berlin*" (*ibid.*, vol. IV, p. 172), "union *berelon*" (*ibid.*, vol. II, p. 497), "uniones *berle*" (*ibid.*, vol. III, p. 406), "unio, genus margariti, et dicitur thuitisce, *perula*" (*ibid.*, vol. I, p. 654), and "calculus *perela* (*ibid.*, vol. II, p. 397), *perala* (*ibid.*, p. 405), *perula* (*ibid.*, p. 579), and those recorded in Graff, "*berle* uniones," show conclusively that the *beryllus* was very soon identified with the pearl. It is clear that OHG. *perala* has developed from *berala*, and this from *beryllus*.

At all times the beryl was identified with a shining stone *par excellence*, hence later *berill-*, in the apocopated form *brill-*, lay at the foundation of words for "brilliancy" in the Romance languages. In the XIII.

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[1] XXXVII. 76.

century, Arnoldus Saxo,[1] repeating the older sayings about the beryl, adds, "si in oculo solis opponitur et rotundatur ignem accendit," which shows that the beryl was used for crystal lenses, or, what is more correct, a crystal lens was called "beryl." Indeed, Arnoldus says also of the crystal, "hic lapis solis radiis oppositus ignem concipit."[2] Vincent of Beauvais, in his *Speculum naturale*, distinctly confounds the beryl with a crystal lens, when he says that it attracts the rays of the sun, which pass through the stone and on the other side attract tow or cloth or anything inflammable and consume them, nay even sting the hand of him who holds the beryl;[3] but this statement is derived from those of Marbod, quoted above.

Thus it becomes clear that ultimately *beryllus* was confounded with any crystal lens, hence *berillus*, *paryll*, *beriillis*, *beriil* are given by Diefenbach as forms for modern Ger. *Brille* "eyeglasses." In OFrench we have *beric*, *bericle*, *baricle*, all obviously from *beriil* for *beryl*, and *berique*, *bezique* for "a kind of ornament," hence Fr. *bésicles* "eyeglasses." On the other hand, the beryl was considered a cheap, flashy stone, as is evidenced in OFr. *berique*, hence Ital. *brillo* "a cheap or false gem," *brillare* "to flash, scintillate, glitter," and Fr. *briller* "to shine."

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[1] E. Stange, *Die Encyklopädie des Arnoldus Saxo*, in *Program des königlichen Gymnasiums zu Erfurt*, No. 278, Erfurt 1905, p. 70; also repeated by Albertus Magnus, *De mineralibus*, II. 2. 2.

[2] Stange, *op. cit.*, p. 71.

[3] "Berillus est lapis conspicuus: oleo vel aquis marinis colore similis. Radium solis ad se trahit: qui scz radius lapidez sine continuitatis solutõc penetrans. Ex altera parte lapidisque scz remotiorem a sole: stupas et panniculos et quecumque sicca et comburenda facile attrahit et accendit. Manum quoque se tenentis adurere dicitur," IX. 48.

XIII. THE PEARL IN GREEK LITERATURE

In the *Atharva-veda* there is a prayer in which the pearl and its shell are mentioned as an amulet bestowing long life and prosperity: "Born of the wind, the atmosphere, the lightning, and the light, may this pearl shell, born of gold, protect us from straits! With the shell which was born in the sea, at the head of the bright substances, we stay the Rakshas and conquer the Atrins (devouring demons). With the shell we conquer disease and poverty; with the shell, too, the Sadānvās. The shell is our universal remedy; the pearl shall protect us from straits! Born in the heavens, born in the sea, brought on from the river (Sindhu), this shell, born of gold, is our life-prolonging amulet. The amulet, born from the sea, a sun, born from Vritra (the cloud), shall on all sides protect us from the missiles of the gods and the Asuras! Thou art one of the golden substances, thou art born from Soma (the moon). Thou art sightly on the chariot, thou art brilliant on the quiver. The bones of the gods turned into pearl; that, animated, dwells in the waters. That do I fasten upon thee unto life, lustre, strength, longevity, unto a life lasting a hundred autumns. May the amulet of pearl protect thee!"[1]

In a Sanskrit drama, *Karpūra-Mañjarī*, written about 900 A. D.,[2] the jester gives a more detailed account of the life-history of a pearl oyster: "Methinks last night in my vision I fell asleep by the Ganges. Well, then the Ganges put her graceful little foot on the head of Çiva and washed me clean away with her water. Then by a cloud that was raining at the autumn season to my heart's content I was absorbed. And then, when the lordly sun had entered the asterism of Chitrā, the great cloud went near the place where the Tāmraparnī empties into the ocean. I, too, as I think, am within the cloud and go with it. Then the cloud started to rain there with great big drops of water; and the sea-oysters, such as they call pearl-oysters, emerged from the waters and absorbed me; and I was within them and became a monster pearl. Then in four-and-sixty pearl oysters successively I was a drop of cloud-water, surpassing the opal in hue, and then, in due course, I attained once more to the condition of being a pearl, one of perfect roundness, clear, and flashing."

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[1] M. Bloomfield, *Hymns of the Atharva-veda*, Oxford 1897, in *The Sacred Books of the East*, vol. XLII, p. 62.

[2] *Harvard Oriental Series*, vol. IV, p. 264 f.

The Hindu conception of the birth of the pearl from lightning or from raindrops found its way among Greek authors. Arrian has the following story of the pearl: "Other Indians tell this story of Hercules, namely, that when he had travelled through all the earth, and purg'd it of every vice, he found a pearl in the sea, such as the merchants at this day, buy up in India, at a great price, and bring to us; and such as the Greeks heretofore, and the better sort of Romans, at this time, purchase at a vast expense. Hercules was so strangely taken with the lustre of this pearl, that he commanded such to be sought for throughout all the coasts of India, wherewith to adorn his daughter. Megasthenes writes, that the shell wherein this pearl is generated and enclosed, is taken in netts, and that a vast number of other shells surround it, like a swarm of bees, because they have their king or queen as bees have; and if at any time their king happens to be taken by fishermen, they all suffer themselves to be taken with him; but if their king escapes, the rest are not easily inclos'd. The Indians suffer the meat, or flesh, contain'd between these shells, to putrify but preserve the pearls for their use. Some of these pearls are so much esteem'd by the Indians, as to be valued at three times their weight in gold, tho' gold is also the produce of their country."[1]

This story, as far as it is quoted from Megasthenes, is also contained in the much longer account of the pearl by Aelian: "The pearl is praised and admired by the foolish and the women. It is a product of the Red Sea, and is said by the fabulists to bring forth an issue when the lightning flashes into the opened shells. The mussels, the mothers of these, are caught in good weather and a calm sea. Having caught these, the fishermen take out the pearls, the product of the libidinous mind. In the largest mussel a small pearl may be found, in the smallest a large one, while some have none. One has not more than one; others have many, and some say that twenty have been found in one mussel. The mussel is the flesh, and the pearl clings to it like a fishbone. If one should open a mussel before proper time of bearing, he would find the flesh, but would not get the prize of his fishing. The pearl resembles a porous stone and does not contain the least amount of moisture. Those who sell or buy them value their beauty and price from their whiteness and size, and choose them accordingly, and, in faith, many dealing in them have become very rich. I am not ignorant of the fact that after the stones have been removed, thus, as it were, paying a price for their redemption, the mussels have been thrown back and have produced new pearls. If the mother mussel should die before the pearl has been removed, the latter putrefies and dies together with the flesh. It is by nature round and smooth. Should any one wish to polish and smooth the stone differently from what it is in its natural state, it would betray the artifice, for it does not yield to it and becomes rough and shows that its beauty was obtained by fraud."[1] In another place Aelian says: "The Indian pearl is caught in the following manner. There is a city, by the name of Perimula, over which ruled Soras, a man of royal descent, at the time when Eucratides reigned in Bactria. All about it live the Ichthyophagi, who are said to catch the pearls with nets which are stretched all around the shore. The above-said stones are born from mussels, resembling snails, which swim about in large numbers, led by leaders, just as swarms of bees are led by queens, and these leaders, I understand, excel in beauty and size. The divers make special efforts to catch a leader, because, when he is captured, the swarm is left without guidance and, so to speak, without a general, and is captured, just as a flock is left to a hostile fate when it is bereft of its shepherd. If the leader escapes, he rules them wisely and preserves them. The captured mussels are salted down in small vessels, and when the flesh has decayed and deliquesced, the pearls are left. The best Indian pearls are said also to be found in the Red Sea. They are also found in the Western Ocean, where Britain is, but they seem to be there more yellow and less brilliant. Juba says that they are also found in the Sea of Bosporus, but here they are inferior to the British, and not at all to be compared to the Indian or Erythraean. The Indian land pearls are said not to have their own nature, but to be the product of the crystal, which grows, not through cold, but in the earth."[1]

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[1] *Indian History*, chap. VIII, in Rooke, *History of Alexander's Expedition*, London 1729, vol. II, p. 218.

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[1] «Ὁ ᾀδόμενος μὲν παρὰ τοῖς ἀνοήτοις, καὶ ἐν ταῖς γυναιξὶ θαυμαστὸς μαργαρίτης· θρέμμα μέντοι τῆς ἐρυθρᾶς θαλάττης καὶ οὗτός ἐστι, καὶ τίκτεσθαί τε αὐτὸν τερατολογοῦσιν, ὅταν ταῖς κόγχαις ἀνεῳγμέναις ἐπιλάμψωσιν αἱ ἀστραπαί. Θηρῶνται δὲ ἄρα αἵδε αἱ κόγχαι, αἱ τῶν προειρημένων μητέρες, εὐημερίας τε οὔσης καὶ τῆς θαλάττης λείας· οἱ δὲ θηραταὶ συλλαβόντες, εἶτα ἐξεῖλον τοῦτον δὴ τὸν θέλγοντα τὰς τῶν μάχλων ψυχάς. Εὑρεθείη δ' ἂν καὶ ἐν κόγχῃ μεγίστῃ μικρὸς, καὶ ἐν μικραῖς μέγας· κᾆτα ἡ μὲν οὐδένα ἔχει, ἡ δὲ οὐ πέρα τοῦ ἑνὸς, πολλαὶ δὲ καὶ πολλοὺς, εἰσὶ δὲ, οἳ λέγουσι καὶ εἴκοσι προσπεφυκέναι μιᾷ κόγχῃ. Καὶ ἡ μὲν κόγχη κρέας ἐστὶν, ἐπιπέφυκε δὲ ἄρα ὡς σκόλοψ ταῦτα. Πρὸ καιροῦ δὲ καὶ τῆς ὠδῖνος τῆς ἐντελοὺς, εἶπερ οὖν ἀνοίξαι τις τὰς κόγχας, κρέας μὲν εὕρῃ, τῆς δὲ θήρας τὸ ἀγώνισμα οὐκ ἕξει. Λίθῳ δὲ ἄρα ὁ μαργαρίτης ἔοικε πεπωρωμένῳ, καὶ ἔχειν ἐν ἑαυτῷ, καὶ στέγειν ὑγρὸν οὐ πέφικεν οὐδὲ ὀλίγον. Δοκοῦσι δὲ ἄρα τοῖς τούτων καπήλοις, καὶ τοῖς ὠνουμένοις, οἱ ἄγαν λευκοὶ καὶ οἱ μεγάλοι κάλλιστοι καὶ τιμαλφέστατοι, ὥστε ἐκείνοις κρίνειν αὐτούς· καὶ πλούσιοί γε ἐξ αὐτῶν ἐγένοντο οὐ μὰ Δία ὀλίγοι, οἷς ἐστιν ἐντεῦθεν ὁ βίος. Οὐκ ἀγνοῶ δὲ οὐδὲ ἐκεῖνο, ὅτι ἄρα, ἐξαιρεθέντων τῶν λίθων τῶνδε, ἀφείθησαν αὖθις αἱ κόγχαι, οἱονεὶ λύτρα δοῦσαι τῆς ἑαυτῶν σωτηρίας τὸ σπούδασμα τὸ ἤδη προειρημένον, εἶτα ἐπανέφυσαν αὖθις αὐτό. Ἐὰν δὲ τὸ ζῶον τὸ τρέφον αὐτὸν, πρὶν ἢ ἐξαιρεθῆναι τὸν μαργαρίτην, ἀποθάνῃ, ὥς που λέγει τις λόγος, τῇ σαρκὶ μέντοι συσσήπεται καὶ ἐκεῖνος καὶ ἀπόλλυται. Φύσιν δὲ ἔχει τῆς περιφερείας τὸ λεῖον καὶ εὐπερίγραφον. Εἰ δὲ ἐθέλοι τις τῶν πεφυκότων ἑτέρως τινὰ σοφίας τέχνῃ περιγράψαι τε, καὶ λεῖον ἀποφῆναι τὸ λίθον, ὅδε ἐλέγχει τὴν ἐπιβουλήν· οὐ γὰρ πείθεται, τραχύτητας δὲ ὑπαναφύει, καὶ ὅτι ἄρα ἐπιβουλεύεται ἐς κάλλος κατηγόρει ταύτῃ,» X. 13.

We can observe in these two Greek accounts the origins of two myths connected with the pearl. The story of the king of the pearls arose from the fact that the large round pearl, the chief object of the diver's pursuit, has been called "royal," and even now the Persians have the word *sāhwār* "royal" for the large pearl. The story that the pearl cannot be polished without betraying the fact that its beauty was obtained by fraud, gives rise, as will be shown later, to the story of the fairy Morgain, whose beauty is of a homely nature.

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[1] «Ὁ δὲ Ἰνδὸς μάργαρος, ἄνω γὰρ εἶπον περὶ τοῦ Ἐρυθραίου, λαμβάνεται τρόπῳ τοιῷδε. Πόλις ἐστὶν, ἧς ἦρχε Σώρας ὄνομα, ἀνὴρ γένους βασιλικοῦ, ὅτε καὶ Βάκτρων ἦρχεν Εὐκρατίδης, ὄνομα δὲ τῇ πόλει Περιμούδα. Κατοικοῦσι δὲ αὐτὴν ἄνδρες Ἰχθυοφάγοι, ὅθεν ὁρμωμένους σὺν τοῖς δικτύοις φασὶ τούσδε τοὺς προειρημένους περιλαμβάνειν ἀγκῶσι μεγάλοις αἰγιαλοῦ κύκλον εὐμεγέθη. Γίνεσθαι δὲ τὸν προειρημένον λίθον ἐκ κόγχης στρόμβῳ ἐμφεροῦς μεγάλου, νήχεσθαί τε κατὰ ἀγέλας τοὺς μαργάρους, καὶ ἔχειν ἡγεμόνας, ὡς ἐν τοῖς σμήνεσιν αἱ μέλιτται τοὺς καλουμένους βασιλέας· ἀκούω δὲ εἶναι καὶ τοῦτον διαπρεπῆ καὶ τὴν χρόαν, καὶ τὸ μέγεθος. Ἀγώνισμα δὲ ἄρα ποιοῦνται συλλαβεῖν αὐτὸν οἱ κολυμβηταὶ οἱ ὕφυδροι· τούτου γὰρ ἡρημένου, καὶ τὴν ἀγέλην αἱροῦσι πᾶσαν ἐρήμην, ὡς ἂν εἴποι τις, καὶ ἀπροστάτευτον οὖσαν· ἀτρεμεῖ γὰρ, καὶ οὐκ ἔτι πρόσεισιν, οἷα δήπου ποίμνη τὸν νομέα ἀφῃρημένη, κατά τινα τύχην ἐχθράν· ἕως δὲ διαφεύγει, καὶ μάλα γε σοφῶς ἐξελίττει, καὶ προηγεῖται, καὶ σώζει τὸ ὑπήκοον. Τοὺς δὲ ληφθέντας ἐν πιθάκναις λέγονται ταριχεύειν, ὅταν δὲ ἡ σὰρξ μυδήσῃ καὶ περιρρυῇ, καταλείπεται ἡ ψῆφος. Ἄριστος δὲ ἄρα ὁ Ἰνδικὸς γίνεται, καὶ ὁ τῆς θαλάττης τῆς Ἐρυθρᾶς. Γίνεται δὲ καὶ κατὰ τὸν ἑσπέριον ὠκεανὸν, ἔνθα ἡ Βρετανικὴ νῆσός ἐστι· δοκεῖ δέ πως χρυσῷ ὁπότερος ἰδεῖν εἶναι, τάς τε αὐγὰς ἀμβλυτέρας ἔχων καὶ σκοτωδεστέρας. Γίνεσθαι δέ φησιν Ἰόβας καὶ ἐν τῷ κατὰ Βόσπορον πορθμῷ, καὶ τοῦ Βρεττανικοῦ ἡττᾶσθαι αὐτὸν, τῷ δὲ Ἰνδῷ καὶ τῷ Ἐρυθραίῳ μηδὲ τὴν ἀρχὴν ἀντικρίνεσθαι. Ὁ δὲ ἐν Ἰνδίᾳ χερσαῖος οὐ λέγεται φύσιν ἔχειν ἰδίαν, ἀλλὰ ἀπογέννημα εἶναι χρυστάλλου, οὐ τοῦ ἐκ τῶν παγετῶν συνισταμένου, ἀλλὰ τοῦ ὀρυκτοῦ,» XV. 8.

The fullest Greek account before the *Physiologus* is found in Athenaeus: "But concerning the oysters which are grown in the Indian Ocean; (for it is not unreasonable to speak of them, on account of the use of pearls); Theophrastus speaks in his treatise on Precious Stones, and says, 'But among the stones which are much admired is that which is called the pearl, being transparent in its character; and they make very expensive necklaces of them. They are found in an oyster which is something like the pinna, only less. And in size the pearl resembles a large fish's eye.' Androsthenes, too, in his Voyage along the Coast of India, writes in these terms—'But of strombi, and chaerini, and other shell-fish, there are many different varieties, and they are very different from the shell-fish which we have. And they have the purple-fish, and a great multitude of other kinds of oysters. There is also one kind which is peculiar to those seas, which the natives call the *berberi*, from which the precious stone called the pearl comes. And this pearl is very expensive in Asia, being sold in Persia and the inland countries for its weight in gold. And the appearance of the oyster which contains it is much the same as that of the cteis oyster, only its shell is not indented, but smooth and shaggy. And it has not two ears as the cteis oyster has, but only one. The stone is engendered in the flesh of the oyster, just as the measles are in pork. And it is of a very golden colour, so as not easily to be distinguished from gold when it is put by the side of it; but some pearls are of a silvery appearance, and some are completely white like the eyes of fish.' But Chares of Mitylene, in the seventh book of his Histories of Alexander, says—'There is caught in the Indian sea, and also off the coast of Armenia, and Persia, and Susiana, and Babylonia, a fish very like an oyster; and it is large and oblong, containing within the shell flesh which is plentiful and white, and very fragrant, from which the men pick out white bones which they call the pearl. And they make of them necklaces and chains for the hands and feet, of which the Persians are very fond, as are the Medes and all Asiatics, esteeming them as much more valuable than golden ornaments.' But Isidorus the Characene, in his Description of Parthia, says that 'in the Persian sea there is an island where a great number of pearls are found; on which account there are quantities of boats made of rushes all about the island, from which men leap into the sea, and dive down twenty fathoms, and bring up two shells. And they say that when there is a long continuance of thunder-storms, and heavy falls of rain, then the pinna produces most young, and then, too, the greatest quantity of pearls is engendered, and those, too, of the finest size and quality. In the winter the pinna is accustomed to descend into chambers at the very bottom of the sea; but in summer they swim about all night with their shells open, which they close in the day-time: and as many as stick to the crags, or rocks, throw out roots, and remaining fixed there, they generate pearls. But they are supported and nourished by something which adheres to their flesh: and this also sticks to the mouth of the cockle, having talons and bringing it food: and it is something like a little crab, and is called the guardian of the pinna. And its flesh penetrates through the centre of the cockle-shell, like a root: and the pearl being generated close to it, grows through the solid portion of the shell, and keeps growing as long as it continues to adhere to the shell. But when the flesh gets under the excrescence, and cutting its way onwards, gently separates the pearl from the shell, then when the pearl is surrounded by flesh, it is no longer nourished so far as to grow at all; but the flesh makes it smoother, and more transparent, and more pure. And so, too, the pinna, which lives at the bottom, engenders the most transparent sort of pearl; and it produces them also very pure and of large size. But that which keeps near the surface, and is constantly rising, is of a smaller size and a worse colour, because it is affected by the rays of the sun. But those who hunt for pearls are in danger when they hastily put their hand into the opening of the shell, for immediately the fish closes its shell, and very often their fingers are sawn off; and sometimes they die immediately. But all those who put in their hand sideways easily draw off the shells from the rock."[1]

It appears from the above passages that the Greek accounts of the pearl are entirely based on the Hindu conception of its origin, to which are added a few misconceptions, such as that of the king of the pearls, from the Eastern name of "King Pearl" for the largest specimen. Outside of the Hindu account nothing whatsoever is said about the pearl in any Greek author, and Aristotle, where there are so many interpolations, none the less has nothing whatsoever in regard to it. Nowhere do we find here any reference to the birth of the pearl in the morning, which, it will soon be shown, is of Arabic origin.

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[1] III. 45–46.

THE PEARL IN ARABIC LITERATURE.

Probably the oldest Arabic account of the pearl preserved to us is found in an account of the IX. century:[1] "The formation of the pearl is the work of divine wisdom, whose name be praised. The pearl presents itself at first in the form of a grain of asafoetida, of which it has the color, form, size, lightness, fineness and frailty. It moves feebly on the surface of the water and falls upon the sides of the divers' barges. After a while it grows stronger and larger and assumes the solidity of stone. When it has acquired weight, it attaches itself to the bottom of the sea, and God only knows what it feeds on. At first one finds in the pearl nothing but a piece of red flesh which at its root resembles a tongue, and has neither back, nor nerves, nor veins. However, people do not agree as to the formation of the pearl. Some authors have said that the shell rises to the surface of the water when it rains, and opens its mouth in order to receive the rain drops, which are changed into grains. Other authors maintain that the pearl is engendered by the shell itself, which is the more likely opinion. Indeed, one sometimes finds the pearl in the shell in the form of a plant which adheres to the shell itself. It can be separated. And this the merchants who voyage on the ocean call *qala*ʿ (قلع). God only knows how it is."

The author knew only the Hindu and Greek accounts of the origin of the pearl, but he also knew the Sanskrit appellation, *muktā* "separated," for the pearl, which he translated by the Arabic term قلع *qala'*, from قلع *qala'a* "he detached, removed from its place." The same cause produced Arab. فريد *farīḍ* "pearl," from فرد *faraḍa* "he became single, sole, one, and no more." But the Arabs had still another term for "pearl," which was due to the misunderstanding of the passage in Aelian, where he tells of the leader of the pearls. The sentence, «νήχεσθαί τε ϰατὰ ἀγέλας τοὺς μαϱγάϱους, ϰαὶ ἔχειν ἡγεμόνας,» was understood by the Arabs to mean that the very large pearl, the main object of the pearl divers, was called ἡγεμών. Hence they created their هيجمانة *hiǵamānah* "precious pearl," which is preserved in Arab. جمان *ǵumān* "pearls, beads made of silver, like pearls." But ἡγεμών was in the VII. century pronounced *hiemon*, and we should expect also such a form in Arabic. This is actually recorded in a large number of Latin glossaries. We read: *hianio* (*Cod. Vat. 3321*, *Cod. Sang. 912*, *Lib. Gloss.*, *Ampl. Sec.*), *hiamio* (*Ampl. Prim.*), *hiameo* (*Corp. Gloss.*, *Epin. Gloss.*), *hinio* (*Gloss. Affat.*) "margarita pretiosa." Outside of the glossaries this word is totally unknown.

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[1] J. T. Reinaud, *Relation des voyages faits par les Arabes et les Persans dans l'Inde et à la Chine dans le IX*^{e} *siècle de l'ère chrétienne,* Paris 1845, vol. I, p. 146 ff.

There is another term for "precious pearl," which is due to Christian influence. "Pearl" was early applied to the Virgin, as, for example, in the Coptic Homily upon the Virgin or the Birth of Christ: "Mary is likened to Gideon's fleece, to a well-watered land whence the rod of Jesse springs. Joseph renounced all worldly possessions to obtain Mary. She is a pearl in the midst of other jewels, in a meadow girt about by the sea, the fish in which live all at peace. When the pearl's time is fulfilled, it joins that other pearl which lies below the water in its shell *džek*, and together they mount up and illuminate the field and trees. The pearl in the meadow is now named *achates*."[1] The interesting alternative *achates* for "pearl" is also found in Arabic, where ياقوت *yāqūṭ* is given in the Latin-Arabic vocabulary both for *achates* and *margarita*. The agate is frequently mentioned in Arabic literature as the gem *par excellence*, hence also جوهر *ǵauhar* is used for it.[2] It was easily associated with the pearl, because both were brought from Ceylon.[3]

The relation of the agate to the pearl is for the first time brought out in Origen, in connection with a discussion of Matth. XIII. 45, although the agate is not mentioned by name. Origen says: "This is what we have learned about the nature of the pearl from those who have written about the stones, namely, that there are land pearls and sea pearls. The land pearls are found only in India, and from them seals, rings and necklaces are made." The whole of Origen's discussion of the pearl runs as follows: «Πάλιν ὁμοία ἐστὶν ἡ βασιλεία τῶν οὐρανῶν ἀνθρώπῳ ἐμπόρῳ ζητοῦντι καλοὺς μαργαρίτας· Ἐπειδὴ ἡ βασιλεία τῶν οὐρανῶν ὁμοία ἐστὶ, πολλῶν ὄντων ἐμπόρων πολλὰ ἐμπορευομένων, οὐδενὶ ἐκείνων, τῷ δὲ ζητοῦντι τοὺς καλοὺς μαργαρίτας, καὶ εὑρόντι ἕνα ἀντάξιον τῶν πολλῶν, πολύτιμον μαργαρίτην, ὃν ἀντὶ πάντων ἠγόρασεν, εὔλογον ἡγοῦμαι τυγχάνειν τὰ περὶ τῆς φύσεως τοῦ μαργαρίτου ἐξετάσαι. Παρατήρει δὲ ἐπιμελῶς, ὅτι οὐκ εἶπεν, ὅτι πέπρακε πάντας οὓς εἶχεν· οὐ γὰρ μόνους οὓς ὁ ζητῶν καλοὺς μαργαρίτας ἐώνηται πέπρακεν, ἀλλὰ καὶ πάντα ὅσα εἶχεν, ἵνα ἀγοράσῃ τὸν μαργαρίτην ἐκεῖνον· Εὕρομεν οὖν παρὰ τοῖς περὶ λίθων πραγματευσαμένοις περὶ τῆς φύσεως τοῦ μαργαρίτου ταῦτα, ὅτι τῶν μαργαριτῶν οἱ μέν εἰσι χερσαῖοι, οἱ δὲ θαλάττιοι· καὶ οἱ μὲν χερσαῖοι παρ' Ἰνδοῖς μόνοις

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[1] W. E. Crum, *op. cit.*, p. 36.

[2] Clément-Mullet, *Essai sur la minéralogie arabe*, in *Journal asiatique*, sixième série, vol. XI, p. 30 ff.

[3] *Ibid.*, p. 40.

γίνονται, πρέποντες σφραγῖσι καὶ σφενδόναις καὶ ὅρμοις· οἱ δὲ θαλάττιοι, οἱ μὲν διαφέροντες παρὰ τοῖς αὐτοῖς Ἰνδοῖς εὑρίσκονται, οἵτινές εἰσι καὶ ἄριστοι, ἐν τῇ Ἐρυθρᾷ θαλάσσῃ γινόμενοι. Δευτερεύουσι δὲ ὡς ἐν μαργαρίταις οἱ ἐκ τοῦ κατὰ Βρεττανίαν Ὠκεανοῦ λαμβανόμενοι· τρίτοι δὲ καὶ ἀπολειπόμενοι οὐ μόνον τῶν πρώτων, ἀλλὰ καὶ τῶν δευτέρων, οἱ κατὰ Βόσπορον περὶ τὴν Σκυθίαν εὑρισκόμενοι. Ἔτι δὲ ταῦτα ἐλέγετο περὶ τοῦ Ἰνδικοῦ μαργαρίτου, ὅτι ἐν κόγχοις γίνεται προσεοικόσι τὴν φύσιν εὐμεγέθεσι στρόμβοις· οὗτοι δὲ ἱστοροῦνται οἱονεὶ κατὰ ἴλας τὴν θαλάττιον ποιούμενοι νομὴν, καθάπερ ἀγελάρχου τινὸς ἐξηγουμένου, περόπτου τὴν χρόαν, καὶ τὸ μέγεθος, καὶ διαφέροντος τῶν ὑπ' αὐτόν· ὥστε ἀναλογίαν αὐτὸν ἔχειν τῷ καλουμένῳ ἐσσῆνι μελισσῶν. Ἱστόρηται δὲ καὶ περὶ τῆς θήρας τῶν διαφερόντων, τουτέστι τῶν ἐν Ἰνδίᾳ, τοιοῦτον· ὅτι περιλαμβάνοντες οἱ ἐπιχώριοι δικτύοις κύκλον αἰγιαλοῦ μέγαν, κατακολυμβῶσιν, ἕνα ἐξ ἁπάντων τὸν προηγούμενον ἐπιτηδεύοντες λαβεῖν. τούτου γὰρ ἁλόντος, φασὶν ἄμοχθον γενέσθαι τὴν θήραν τῆς ὑπὸ τούτῳ ἀγέλης, οὐδενὸς ἔτι ἀτρεμοῦντος τῶν ὑπ' αὐτῆς, ἀλλ' οἷον δεδεμένου ἱμάντι, καὶ ἑπομένου τῷ ἀγελάρχῃ. Λέγεται δὲ καὶ ἡ γένεσις τῶν ἐν Ἰνδίᾳ μαργαριτῶν χρόνοις συνίστασθαι, τροπὰς λαμβάνοντος τοῦ ζώου πλείονας, καὶ μεταβολὰς, ἕως τελειωθῇ. Ἔτι δὲ καὶ τοῦτο ἱστόρηται, ὅτι διοίγεται ὁ κόγχος χάσμῃ παραπλησίως, ὁ τοῦ φέροντος τὸν μαργαρίτην ζώου, καὶ διοιχθεὶς τὴν οὐράνιον εἰς ἑαυτὸν δέχεται δρόσον· ἧς ἐμπλησθεὶς καθαρᾶς καὶ ἀθολώτου, περιαυγὴς γίνεται, καὶ λοχεύει μέγαν καὶ εὔρυθμον τὸν λίθον. Εἰ δέ ποτε ἐπηχλυμένης, καὶ ἀνωμάλου χειμερίου τε μεταλάβῃ δρόσου, ὀμιχλώδη κύει μαργαρίτην, καὶ κηλίσιν ἐπίμωνον. Ἔτι δὲ καὶ τοῦτο εὕρομεν, ὅτι εἰ μεσολαβηθείη ὁδεύων ἐπὶ τὴν πλήρωσιν οὗ κύει λίθου ὑπὸ ἀστραπῆς, μύει, καὶ ὡσπερεὶ τῷ δείματι σκορπίζει, καὶ διαχεῖ τὸν γόνον εἰς τὰ λεγόμενα φυσήματα. Ἔστι δὲ ὅτε καθάπερ ἠλιτόμηνα γεννᾶται βραχέα, καὶ ἀχλύος τι ἔχοντα, πλὴν εὔρυθμα. Ἔτι δὲ καὶ τοῦτο ἔχει ὁ Ἰνδικὸς μαργαρίτης· παρὰ τοὺς ἄλλους λευκός ἐστι τὴν χρόαν ἀργύρῳ διαφανεῖ προσφερὴς, αὐγήν τε ὑποχλωρίζουσαν ἠρέμα διαλάμπειν, ὡς ἐπίπαν δὲ σχῆμα ἔχει στρογγύλον· ἔστι δὲ καὶ τρυφερόχρως, καὶ ἁπαλώτερος ἢ κατὰ λίθον. Οὕτως δέ ἐστιν ἐπιτερπὴς ἰδέσθαι, ὡς καὶ παρὰ τοῖς ἐμφανεστέροις, καθὰ ὁ ἀναγράψας ἔλεγε περὶ τῶν λίθων, ἀφυμνεῖσθαι. Ἔτι καὶ τοῦτο σημεῖόν ἐστιν ἀρίστου μαργαρίτου τὸ τὴν περιφέρειαν τετορνευμένην ἔχειν, καὶ τὸ χρῶμα λευκότατον καὶ διαυγέστατον, καὶ τῷ μεγέθει μέγιστον. Ταῦτα μὲν οὖν περὶ τοῦ Ἰνδικοῦ· ὁ δὲ κατὰ Βρεττανίαν, φασὶ, χρυσωπὸς μὲν ἔστι τὴν ἐπίχροιαν, ὁμιχλώδης δέ τις, καὶ ταῖς μαρμαρυγαῖς ἀμβλύτερος· ὁ δὲ ἐν τῷ πορθμῷ τῷ κατὰ Βόσπορον κνεφωδέστερος τοῦ Βρεττανικοῦ, καὶ πελιδνὸς, καὶ τέλεον ἀμυδρὸς, ἁπαλός τε καὶ μακρομεγέθης. Καὶ γεννᾶται δὲ ὁ ἐν τῷ κατὰ Βόσπορον πορθμῷ οὐκ ἐν ταῖς πίνναις, ὅ ἐστιν ὀστράκων εἶδος μαργαριτοφόρον, ἀλλ' ἐν τοῖς προσαγορευομένοις μυσί· τούτοις δὲ, λέγω δὴ τοῖς κατὰ Βόσπορον, ἡ νομὴ ἐν τέλμασίν ἐστιν. Ἱστόρηται δὲ καὶ τέταρτον γένος εἶναι μαργαριτῶν περὶ τὴν Ἀκαρνανίαν ἐν ταῖς τῶν ὀστρέων πίνναις· οὐ σπουδαῖοι δὲ οὗτοι ἄγαν, ἀλλὰ καὶ ἄρρυθμοι, καὶ τὸ σχῆμα, καὶ τὸ χρῶμα τέλεον διατεθολωμένοι καὶ ρυπῶντες· Καὶ ἄλλοι δὲ παρὰ τούτους εἰσὶ περὶ τὴν αὐτὴν Ἀκαρνανίαν πάντων ἕνεκεν ἀπόβλητοι. Ταῦτα δὲ συναγαγὼν ἐκ τῆς περὶ λίθων πραγματείας, φημὶ τὸν Σωτῆρα, ἐπιστάμενον διαφορὰν μαργαριτῶν, ὧν ἐν τῷ γένει εἰσὶ καὶ καλοὶ καὶ ἄλλοι φαῦλοι, εἰρηκέναι τό· Ὁμοία ἐστὶν ἡ βασιλεία τῶν οὐρανῶν ἀνθρώπῳ ἐμπόρῳ ζητοῦντι τοὺς καλοὺς μαργαρίτας· εἰ γὰρ μὴ καὶ φαῦλοι ἦσάν τινες ἐν μαργαρίταις, οὐκ ἂν εἴρηται, ζητοῦντι καλοὺς μαργαρίτας. Ἐν τοῖς παντοδαποῖς δὲ ἐπαγγελλομένοις ἀλήθειαν λόγοις καὶ τοῖς φέρουσιν αὐτοὺς ζητεῖ τοὺς μαργαρίτας· καὶ ἔστωσαν, ἵνα οὕτως ὀνομάσω, οἱ ἀπὸ τῆς οὐρανίου δρόσου συλλαμβάνοντες κόγχοι, καὶ κύοντες ἐξ οὐρανοῦ λόγον ἀληθείας, προφῆται, οἱ καλοὶ μαργαρῖται, οὓς ὁ κατὰ τὴν προκειμένην λέξιν ζητεῖ ἔμπο-

ρος ἄνθρωπος. Ὁ δὲ ἀγελάρχης τῶν μαργαριτῶν, ᾧ εὑρισκομένῳ καὶ οἱ λοιποὶ συνευρίσκονται, ὁ πολυτίμητος μαργαρίτης, ὁ Χριστὸς τοῦ Θεοῦ, ὁ ὑπὲρ τὰ τίμια γράμματα καὶ νοήματα τοῦ νόμου καὶ τῶν προφητῶν λόγος, οὗ εὑρεθέντος καὶ τ' ἄλλα πάντα εὐμαρῶς παραλαμβάνονται. Διαλέγεται δὲ ὁ Σωτὴρ τοῖς μαθηταῖς πᾶσιν, ὡς ἀνθρώποις ἐμπόροις, οὐ μόνον ζητοῦσι τοὺς καλοὺς μαργαρίτας, ἀλλὰ καὶ εὑροῦσιν αὐτοὺς, καὶ κεκτημένοις, ἐν οἷς φησι· Μὴ βάλητε τοὺς μαργαρίτας ἔμπροσθεν τῶν χοίρων. Δῆλον δὲ, ὅτι τοῖς μαθηταῖς ταῦτα λέλεκται ἐκ τοῦ προτετάχθει τῶν λόγων τό· Ἰδὼν δὲ τοὺς ὄχλους ἀνέβη εἰς τὸ ὄρος, καὶ καθίσαντος αὐτοῦ προσῆλθον αὐτῷ οἱ μαθηταὶ αὐτοῦ· ἐν γὰρ τῷ εἱρμῷ τῶν λόγων ἐκείνων εἴρηται· Μὴ δῶτε τὸ ἅγιον τοῖς κυσὶ, μηδὲ βάλητε τοὺς μαργαρίτας ἔμπροσθεν τῶν χοίρων. Μήποτε οὖν ὁ μὴ ἔχων μαργαρίτας, ἢ τὸν πολύτιμον μαργαρίτην, οὐδὲ μαθητής ἐστι τοῦ Σωτῆρος, τοὺς μαργαρίτας τοὺς καλοὺς, οὐ τοὺς νεφώδεις, οὐδὲ τοὺς ἀχλυώδεις, ὁποῖοί εἰσιν οἱ τῶν ἑτεροδόξων λόγοι, οὐ πρὸς ἀνατολὰς γεννώμενοι, ἀλλὰ πρὸς δυσμὰς ἢ πρὸς βορρᾶν, εἰ χρὴ ταῦτα προσπαραλαμβάνειν, δι' ἣν εὕρομεν διαφορὰν μαργαριτῶν ἐν διαφόρυις γινομένων τόποις. Τάχα δὲ οἱ τεθολωμένοι λόγοι καὶ ἐν τοῖς ἔργοις σαρκὸς κατειλιγμέναι αἱρέσεις οἱ ἀχλυώδεις εἰσὶ καὶ οἱ ἐν τέλμασι γινόμενοι μαργαρῖται οὐ καλοί. Συνάψεις δὲ τῷ ζητοῦντι καλοὺς μαργαρίτας τό· Ζητεῖτε, καὶ εὑρήσετε· καὶ τό, Πᾶς ὁ ζητῶν εὑρίσκει. Τί γὰρ ζητεῖτε; ἢ τί πᾶς ὁ ζητῶν εὑρίσκει; Ἀποτολμήσας εἴπω, τοὺς μαργαρίτας, καὶ τὸν μαργαρίτην, ὃν ὁ πάντα δοὺς καὶ ζημιωθεὶς κτᾶται, δι' ὅν φησιν ὁ Παῦλος· Τὰ πάντα ἐζημιώθην, ἵνα Χριστὸν κερδήσω, πάντα λέγων τοὺς καλοὺς μαργαρίτας· ἵνα Χριστὸν κερδήσω, τὸν ἕνα πολύτιμον μαργαρίτην. Τίμιον μὲν οὖν λύχνος τοῖς ἐν σκότει, καὶ χρεία λύχνου ἕως ἀνατείλῃ ὁ ἥλιος· τιμία δὲ καὶ ἡ ἐπὶ τοῦ προσώπου Μωϋσέως δόξα, ἐγὼ δ' οἶμαι ὅτι καὶ τῶν προφητῶν, καὶ καλὸν θέαμα, δι' ἧς εἰσαγόμεθα πρὸς τὸ δυνηθῆναι ἰδεῖν τὴν δόξαν Χριστοῦ, ᾗ μαρτυρῶν ὁ Πατήρ φησιν· Οὐτός ἐστιν ὁ Υἱός μου ὁ ἀγαπητὸς, εἰς ὃν ηὐδόκησα. Ἀλλ’ οὐ δεδόξασται τὸ δεδοξασμένον ἐν τούτῳ τῷ μέρει ἕνεκεν τῆς ὑπερβαλλούσης δόξης, καὶ χρεία ἡμῖν πρότερον δόξης τῆς ἐπιδεχομένης κατάργησιν ὑπὲρ τῆς ὑπερβαλλούσης δόξης, ὡς χρεία γνώσεως τῆς ἐκ μέρους, ἥτις καταργηθήσεται, ὅταν ἔλθῃ τὸ τέλειον. Πᾶσα τοίνυν ψυχὴ ἐρχομένη εἰς νηπιότητα, καὶ ὁδεύουσα ἐπὶ τὴν τελειότητα δεῖται, μέχρις ἐνστῇ αὐτῇ τὸ πλήρωμα τοῦ χρόνου, παιδαγωγοῦ, καὶ οἰκονόμων, καὶ ἐπιτρόπων, ἵνα μετὰ ταῦτα πάντα ὁ πρότερον μηδὲν διαφέρων δούλου, Κύριος πάντων ὤν, ἀπολάβῃ ἐλευθερωθεὶς ἀπὸ παιδαγωγοῦ, καὶ οἰκονόμων, καὶ ἐπιτρόπων τὰ πατρῷα, τὰ ἀνάλογον τῷ πολυτιμήτῳ μαργαρίτῃ, καὶ τῷ ἐρχομένῳ τελείῳ καταργοῦντι τὸ ἐκ μέρους, ὅταν τὸ ὑπερέχον τῆς γνώσεως Χριστοῦ χωρῆσαί τις δυνηθῇ, προεγγυμνασάμενος ταῖς, ἵν’ οὕτως ὀνομάσω, ὑπερεχομέναις γνώσεσιν ὑπὸ τῆς Χριστοῦ γνώσεως. Ἀλλ’ οἱ πολλοὶ, μὴ νοήσαντες τὸ κάλλος τῶν πολλῶν μαργαριτῶν νομικῶν, καὶ τὴν ἔτι ἐκ μέρους γνῶσιν τὴν πᾶσαν προφητικὴν, οἴονται δύνασθαι χωρὶς ἐκείνων τρανουμένων καὶ καταλαμβανομένων δι’ ὅλων εὑρεῖν τὸν ἕνα πολύτιμον μαργαρίτην, καὶ θεωρῆσαι τὸ ὑπερέχον τῆς γνώσεως Χριστοῦ Ἰησοῦ, οὗ συγκρίσει πάντα τὰ πρὸ τῆς τηλικαύτης καὶ τοσαύτης γνώσεως, οὐ σκύβαλα τῇ ἰδίᾳ φύσει τυγχάνοντα, σκύβαλα ἀναφαίνεται, ἅπερ ἐστὶ τὰ παραβαλλόμενα τάχα τῇ συκῇ ὑπὸ τοῦ ἀμπελουργοῦ κόπρια, αἴτια τυγχάνοντα τοῦ αὐτὴν καρποφορῆσαι. Τοῖς πᾶσι τοίνυν ὁ χρόνος, καὶ καιρὸς τῷ παντὶ πράγματι ὑπὸ τὸν οὐρανὸν, καὶ ἔστι τις καιρὸς τοῦ συναγαγεῖν τοὺς καλοὺς μαργαρίτας λίθους, καὶ καιρὸς μετὰ τὴν συναγωγὴν αὐτῶν τοῦ εὑρεῖν ἕνα πολύτιμον μαργαρίτην, ὅτε καθήκει ἀπελθόντα πωλῆσαι πάντα ὅσα τις ἔχει, ἵνα ἀγοράσῃ τὸν μαργαρίτην ἐκεῖνον· ὥσπερ γὰρ πάντα τὸν ἐσόμενον σοφὸν ἐν λόγοις ἀληθείας δεήσει στοιχειωθῆναι πρότερον, καὶ ἐπὶ πλεῖον διαβῆναι τῆς στοιχειώσεως, καὶ περὶ πολλοῦ ποιεῖσθαι τὴν στοιχείωσιν, οὐ μὴν ἀπομένειν ἐν τῇ στοιχειώσει, ὡς τιμήσαντα αὐτὴν κατὰ τὰς ἀρχὰς, ἀλλὰ

διαβάντα ἐπὶ τὴν τελειότητα, χάριν ἔχειν τῇ εἰσαγωγῇ, ὡς χρησίμῳ γενομένῃ κατὰ τὰ πρότερα· οὕτω τελείως νοηθέντα τὰ νομικὰ καὶ τὰ προφητικὰ, στοιχείωσίς ἐστι πρὸς τελείωσιν νοούμενον τὸ Εὐαγγέλιον, καὶ πάντα τὸν περὶ τῶν Χριστοῦ Ἰησοῦ ἔργων καὶ λόγων νοῦν.»[1]

Here, as in the other Greek writers, there is no reference to the pearl's birth in the morning. Nor is there any reference to it in Pseudo-Athanasius, nor in Theophylactus: «Ὁ μαργαρίτης ἐν τῇ Ἐρυθρᾷ θαλάσσῃ γίνεται· γίνεται δὲ οὕτως. Αἱ ἄκραι τῆς Ἐρυθρᾶς θαλάσσης ξηραί εἰσιν, ὀλίγου χύσιν ὕδατος ἔχουσαι. Εὑρίσκονται δὲ ἐκεῖσε ὀστρακοδέρματά τινα θαλάσσια ἐν πάσῃ τῇ Ἐρυθρᾷ θαλάσσῃ ἐκείνῃ, πίνναι ὀνομαζόμενα. Ἵστανται οὖν αἱ πίνναι ἀεὶ κεκηνυῖαι, καὶ ἐκδεχόμεναι βρώματα εἰς τροφὴν αὐτῶν. Ἐν γοῦν τῷ ἵστασθαι αὐτὰς κεχηνυίας καὶ ἐκδεχομένας τὴν ἑαυτῶν τροφὴν, συχνῶν γενομένων ἐκεῖσε τῶν ἀστραπῶν, κατέρχεται ἡ ἀστραπὴ πρὸς τὴν πίνναν, καὶ εὑρίσκουσα τὰ τῆς πίννης ὄστρακα ἀνεῳγμένα, εἰσέρχεται εἰς αὐτήν· ἡ δὲ πίννα, εὐθὺς συστελλομένη καὶ συσφιγγομένη καθ' ἑαυτὴν, ἐντὸς αὐτῆς ἀποκλείει τὴν ἀστραπήν. Ἡ δὲ ἀστραπή, τυλισσομένη εἰς τοὺς φορβείους τῶν ὀφθαλμῶν τῆς πίννης, καταλαμπρύνει αὐτοὺς, καὶ ποιεῖ αὐτοὺς μαργαρίτας. Ἐξερχόμενοι δὲ οἱ μαργαρῖται ἀπὸ τῆς πίννης, πίπτουσι πρὸς τὸν αἰγιαλὸν τῆς θαλάσσης ἐκείνης, καὶ οὕτως εὑρίσκουσιν αὐτοὺς οἱ γυρεύοντες αὐτούς. Οὕτως μοι νόει καὶ περὶ τῆς σαρκώσεως τοῦ Λόγου. Θάλασσα μὲν ὁ κόσμος, καὶ ἡ Παρθένος κογχύλη. Ἵστατο δὲ ἡ Παρθένος καθάπερ πίννα ἐν τῷ ναῷ, ἐκδεχομένη τὸν οὐράνιον ἄρτον Χριστὸν τὸν Θεὸν, ὃς καὶ κατελθὼν καὶ εἰσελθὼν ἐν αὐτῇ, ὡς ἀστραπὴ, καὶ ἐντετυλιχθεὶς ἐν ταῖς λαγόσι τῆς παρθενίας αὐτῆς, λαμπροειδῆ κατεσκεύασε τὴν παναγίαν σάρκα, ἣν προσελάβετο σαρκωθείς· καὶ οὕτως ἐγεννήθη ἐξ αὐτῆς ὡς καθαρὸς καὶ πολυτίμητος μαργαρίτης ὁ Λόγος τοῦ Θεοῦ χωρὶς ἄρρενος συνουσιασμοῦ. Καὶ ὥσπερ ὁ μαργαρίτης οὐράνιός ἐστι καὶ ἐπίγειος, οὐράνιος μὲν κατὰ τὴν ἀστραπὴν, ἐπίγειος δὲ κατὰ τὴν συμπλοκὴν τῶν ὀφθαλμῶν τῆς πίννης· οὕτω καὶ ὁ Χριστὸς οὐράνιός ἐστι καὶ ἐπίγειος· οὐράνιος μὲν κατὰ τὴν θεότητα, ἐπίγειος δὲ κατὰ ἀνθρωπότητα. Καὶ ὥσπερ ὁ μαργαρίτης κατασκευάζεται ἄνευ συνουσίας ἄρρενος καὶ θήλεος ἐξ ἀστραπῆς καὶ τῆς πίννης, οὕτως καὶ ὁ Χριστὸς ἐγεννήθη ἄνευ συνουσιασμοῦ ἄρρενος καὶ θήλεος ἐκ τῆς θεότητος, καὶ τῆς σαρκὸς τῆς Παρθένου.»[1]

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[1] Migne, *P. G.*, vol. XIII, col. 848 ff.

«Ἔμποροι, οἱ διὰ τούτου διερχόμενοι καὶ ζητοῦντες γνῶσίν τινα εὑρεῖν. Πολλοὶ μὲν οὖν δοκοῦσι μαργαρῖται, αἱ τῶν πολλῶν σοφῶν δόξαι· εἷς δὲ ὁ πολύτιμος. Μία γὰρ ἡ ἀλήθεια, ἥτις ἐστὶν ὁ Χριστός. Ὥσπερ οὖν ὁ μαργαρίτης ἱστορεῖται γεννᾶσθαι ἐν ὀστρέῳ, ᾧπερ ἀνοίγοντι τὰς πτύχας, ἐνσκήπτει ἀστραπή· εἶτα πάλιν συγκλείοντος ταύτας, ἐκ τῆς ἀστραπῆς καὶ τῆς δρόσου συλλαμβάνεται ὁ μαργαρίτης, καὶ διὰ τοῦτο λευκότατός ἐστιν· οὕτω καὶ ὁ Χριστὸς ἐν τῇ Παρθένῳ συνελήφθη ἐξ ἀστραπῆς τῆς ἄνωθεν, τοῦ ἁγίου Πνεύματος· καὶ ὥσπερ ὁ μαργαρίτην ἔχων, πολλάκις κατέχων τοῦτον ἐν τῇ χειρὶ, αὐτὸς μὲν οἶδε πόσον πλοῦτον ἔχει, ἄλλοι δὲ ἀγνοοῦσιν· οὕτω καὶ τὸ κήρυγμα ἐν τοῖς ἀφανέσι καὶ εὐτελέσι κρύπτεται. Δεῖ οὖν τοῦτον τὸν μαργαρίτην κτᾶσθαι, πάντα διδόντας.»[2]

Jerome draws from the same Biblical passage the conclusion that the purchase of the pearl makes all the other gems of less value: "Bonae margaritae, quas quaerit institor, Lex et prophetae sunt. Audi, Marcion; audi, Manichaee: bonae margaritae sunt Lex et prophetae, et notitia veteris Instrumenti. Unum autem est pretiosissimum margaritum, scientia Salvatoris, et sacramentum passionis illius, et resurrectionis arcanum. Quod cum invenerit homo negotiator, similis Pauli apostoli, omnia legis prophetarumque mysteria, et observationes pristinas, in quibus inculpate vixerat, quasi purgamenta contemnit et quisquilias, ut Christum lucrifaciat. Non quo inventio novae margaritae condemnatio sit veterum margaritarum: sed quo comparatione ejus omnis alia gemma vilior sit."[1]

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[1] *Ibid.*, vol. XXVIII, col. 790 ff.

[2] *Ibid.*, vol. CXXIII, col. 289.

We do not possess, it seems, an Arabic version of the Coptic Homily on the Virgin, but that such existed follows from the story of the pearl in *The Book of the Marvels of India:* "Many sailors have told me of the famous pearl known under the name of *yaṭīmah* (يتيمة), because it has not its like in the world. The one who knew most about its history told me that there was a man at Oman, by the name of Moslim Ben Bišr. He was an honest and decent man. His business was to fit out the pearl divers. He had a little property, but his business with the divers went so badly that he lost nearly all his property and one day was left without any resources, as he had neither any valuables, nor stuffs, nor any other object which he could turn into money, except his wife's bracelet, worth a hundred dinars. 'Give it to me,' he said to his wife, 'so that I may get with its price enough money with which to fit out a new lot of divers. Maybe God will favor us with some lucky stroke of fortune.' 'Go,' said his wife, 'you have not left us any object of value with which to save ourselves from embarrassment. We are lost and reduced to beggary. Let us at least live on what the bracelet will bring, rather than lose it at sea.' But the husband knew a pawnbroker to whom he took and sold the bracelet. He used all the money to fit out some divers, with whom he went to the fisheries. It was agreed, according to the custom of the place, that the fishery should last two months, and no more. For fifty-nine days the men dived and brought up the shells and opened them, without finding anything.

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[1] *Ibid., P. L.*, vol. XXVI, col. 94 f.

On the sixtieth day they dived in the name of Iblis—God curse it—and this time they brought up a pearl of great value. Possibly it was worth as much as Moslim had possessed since the day of his birth. 'See what we have found in the name of Iblis.' Moslim took the pearl, crushed it to powder and threw it into the sea. 'Well,' said the divers, 'is that the way you do? You have nothing now, and you are reduced to dire extremity. You had the luck to find a splendid pearl which was worth thousands of dinars, and you crush it to dust!' 'By the glory of God!' he answered, 'How could I allow myself to draw profit from anything obtained in the name of Iblis? God would not bless it. He simply let this pearl fall into my hands, in order to try me and to give me a chance to prove my faith. If I kept it, you would always follow the example of diving in the name of Iblis,—a sin whose gravity could not be atoned for by the greatest profit. By the One God! Even if I had all the pearls of the sea, I would not want them at this price. Go, dive once more, and say—In the name of God and His benediction!' So the divers dived according to his direction, and the evening prayer of that day, which was the sixtieth, was not yet said, when they laid their hands on two pearls, one of which was the *yaṭīmah* and the other of a much lesser value. Moslim took them both to the Khalif Rašīḍ, to whom he sold the *yaṭīmah* for 70000 dirhems and the small one for 30000, and returned to Oman with 100000 dirhems. He built himself a large house, bought some property, and acquired wealth. His house is well known at Oman. That is the story of the pearl *yaṭīmah*."[1]

The finding of two pearls, one of greater value, and one of lesser, the disposing of the bracelet, in order to get the priceless pearl, the connection of the priceless pearl with God,—all these are the Christian conceptions of the pearl, as explained in Origen and in others. يتيمة *yatīmah* is derived from the root يتم *yaṭama* "he was alone, he was orphaned," which shows that it was another translation of Sansk. *muktā* "separated." In reality this is only popular etymology, for the Christian origin of the story shows that we have here Gr. (μαϱγαϱίτης) τίμιος "the precious pearl." In the story of the Virgin Birth of Christ the Arabs would have naturally used the word بكر *bikr* for "Virgin," because this also means "unperforated pearl," which fits the sense perfectly. But بكر *bakr* also means "one who rises in the morning," hence this unavoidably led to the birth of the pearl in the morning, with which we shall soon meet in all sources affected by the Arabic.

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[1] P. A. Van der Lith, *Livre des merveilles de l'Inde*, Leide 1883-1886, p. 134 ff.

Mas'ūdī has a sober account of the pearl in his *Meadows of Gold:* "The pearl fisheries take place in the Persian Gulf from the beginning of April until the end of September. It stops during the other months. In our previous works we have mentioned all the places in this ocean where there are any fisheries, because the pearls are found only in the Sea of Abyssinia, in the country of Kharek, Kotor, Oman, Ceylon, and other points of this region. We also spoke there of the manner in which the pearl is formed, and of the various opinions expressed in regard to this matter, some making them come from rain, and others attributing to it a different origin. We said that the pearls were known as the old and the new, called *al-maḥār* (المحار) and known under the name of *al-balbal* (البلبل). As to the animal itself, it is composed of a conglomeration of flesh and fat which is found in the shell. It fears for the pearl the approach of the divers, as a mother would fear for its child."[1]

We found the *balbal* before in Athenaeus[2] as βέϱϐεϱι. This is apparently the inanimate Singhalese plural of *bellā* "oyster," that is, *bellāval*, which is recorded in the dictionaries as *bello*, since it is an animate object. We have in Singhalese *belisippiya* "oyster shell," where *sippiya* is found in Arabic as سبيّة *sabiyyah* "pearl, as brought up by the diver." But محارة, محار *maḥār*, *maḥārah* "oyster, mother of pearl shell" is the Pers. *muhra* "a kind of small shell resembling pearls," already discussed. This Arab. محار *maḥār* became confounded with نقر *naqr* "cymbals," because محاره *maḥārah* also means "cavity" and نقر *naqr* "he hollowed out." Hence we get LLat. *nacara* "cymbals" and also "mother of pearl," hence OFr. *nacaire* "small drum, cymbals," and *nacle*, *nacre* "mother of pearl," etc.

Arab. مرجان *margān*, *murǵan*, from Gr. μάϱγαϱος, was early applied to the pearl, and became, like *Margareta*, a common name for a woman, as, for example, in the *Arabian nights*. In this capacity there was not lost sight of the fact that, as we have found it stated in Greek authors, the pearl cannot be polished from what it is in its natural state and "would show that its beauty was obtained by fraud:" hence we have the *ḥarz Murǵānah* "the Morgan talisman," "so called because it was worn by a king's concubine, which had the power to make her loved by the king, although she was far from being beautiful. When she was dying and was in the hands of the washers of the dead, the king wanted to see her for the last time, but he found her ugly. Then the washers took the talisman and put it upon her, and, although she was an old woman, the king found her beautiful and fell in love with her and wanted to marry her. She bore him two sons."[1] It is this talismanic property of the pearl or *Morgan* that produced the *Fée Morgain* of the mediaeval romances.[2]

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[1] C. B. de Meynard and P. de Courteille, *Les prairies d'or*, Paris 1861, vol. I, p. 328 f.

[2] See p. 126.

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[1] E. Doutté, *Magie et religion dans l'Afrique du Nord*, Alger 1909, p. 153.

[2] I leave it to Mr. Phillips Barry to work out this interesting development of the *ḥarz Murǵānah.*

XV. THE PEARL IN THE PHYSIOLOGUS.

The Ethiopic version of the pearl story runs as follows: "When the jeweler wants to find a pearl, he drops a net into the ocean and ties his hook to it, and approaches the place where the pearl is found, and there stops. While allowing the hook to follow the pearl, he makes no vacillating motion, since he knows the uncleanliness of its place, and thus he carefully takes possession of the pearl. But how is the pearl engendered? It is a bird, called *Bergānō*, which arises from the sea toward the east, and opens its mouth and swallows the dew of heaven at the rising of the sun and moon and stars. And of all these rays the pearl is made. And *Bergānā* is a bird which has two wings, with which it surrounds the pearl as in a womb. And this resembles our Saviour who is born without semen, from the Virgin alone, of whom John the Baptist said: 'Behold the Lamb of God, which taketh away the sin of the world' (John I. 29). But the pearl removes the uncleanliness of the sea, and the two wings are like the New and the Old Testaments. And the sun, moon, and stars, and dew resemble the Holy Ghost, who gives light to all, and whose might and law fills everything. For the pearl is precious, and whosoever desires it, sells everything which he has, and acquires the same for it. But you, oh free man, sell all your goods and give it to the poor, so that you may acquire the precious pearl, which is Christ, the Sun of justice which enlightens the whole world."[1]

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[1] F. Hommel, *Die aethiopische Uebersetzung des Physiologus*, Leipzig 1877, p. 90.

This Ethiopic version shows not only the influence of the Greek *Physiologus*, but also of a preceding Arabic form. The bird *bergānā*, which corresponds to the Gr. ὄστϱεος, is Arab. مرجان *marǵān* "the pearl," which, because of the reference to two wings, was taken to be a bird. There is no mention in this Ethiopic version of the *achates*, although the title reads "Of the Stone *Akūtīs*." Apparently the original Arabic story had a sober account of the fetching of pearls by divers who descended by a rope, and the story of the *achates* grew out, not only from the association of this precious stone with the pearl in Ceylon, but also from the fact that a diver is called in Arabic غطاس *gattās* "one who dives to the bottom of water to fetch the shells that contain pearls." But the verb غطس *gatasa* also means "to baptize," and this at once suggested the symbolization of the agate as John the Baptist, who comes to prepare the way for Christ. Indeed, some Latin versions specifically refer to this, and John the Baptist was represented with the oyster shell in his hands.[1]

The positive proof that the story of the pearl was originally an Arabic story of the Virgin Mary and the Birth of Christ is given by the account in the *Cod. Reg. 2 C. XII:* "De *mermecolion* et de naturis eius. De sancta Maria et filio eius Iesu Christo. Item lapis est in mari, qui dicitur latine *mermecolion*, grece conca *sabea*, quia concavus est et rotundus. Est autem in duas partes divisus, ita ut cum voluerit claudat. Hic ergo de fundo maris in matutinis horis ascendere dicitur. Ergo cum ascenderit de loco suo super mare, aperit os suum et suscipit intra se de rore celi et circumfulget eum radiis solis et sic fit intra eum margarita preciosa et splendida valde, quippe que rore

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[1] C. Cahier et A. Martin, *op. cit.*, vol. IV, p. 69 f.

celi concepta est et radio solis clarificata. Lapis ergo iste qui dicitur conchus, figuram gerit Sancte Marie, de qua prophetavit Ysaias dicens (11, 1): 'Exiet virga de radice Iesse.' Et iterum ipse (Jes. 7, 14): 'Ecce virgo concipiet in utero et pariet.' De qua virga et virgo Sancta Maria est dicta. Flos vero qui de Sancta Maria natus est, Dominus Deus Noster Iesus Christus est. Sicut enim de mari ascendit ille lapis, sic Sancta Maria ascendit de domo patris sui ad templum Dei et ibi accepit rorem celestem, hec sunt verba, que dicta sunt ad eam ab archangelo Gabriele (Luc. 1, 35): 'Spiritus Domini superveniet in te et virtus altissimi obumbrabit tibi, ideoque et quod nascetur ex te sanctum, vocabitur filius Dei.' Ecce hi sermones sunt ros celestis, sicut ante Iacob patriarcha sanctus benedicens filium suum, significans quia Christus ex semine eius nasceretur, ait ad eum dicens (Gen. 27, 28): 'Det tibi Deus de rore celi et de ubertate terre,' castam atque intactam virginem Mariam significans; matutinis autem horis, quod dixit, tempus orationis in matutinis describit. Quod autem aperit os suum conchus, significat ubi dicit Maria ad angelum (Luc. 1, 38): 'Ecce ancilla Domini, fiat michi secundum verbum tuum' et statim accepit spiritum sanctum in se et virtus altissimi tanquam sol iusticie clarificavit eam atque in eo quod natum est ex ea, vita est et 'lux venit que illuminat omnem hominem venientem in hunc mundum' (Joh. 1, 9). Et Paulus: 'qui est splendor glorie et imago substancie eius' (Hebr. 1, 3). Et alibi: 'in quo complacuit omnem plenitudinem divinitatis inhabitare' (Kol. 1, 19). De ista igitur margarita legitur in ewangelio, quia 'simile est regnum celorum homini negociatori querenti bonas margaritas. Inventa autem una bona margarita vendidit omnem substantiam suam et possedit margaritam' (Matth. 13, 45, 46). Iste autem negociator est utique chorus apostolorum.

Omnes enim apostolos unum negociatorem dicit propter unitatem fidei. Etenim 'non est iudeus, neque grecus, neque servus, neque liber, neque [s]citha, neque barbarus, neque masculus, neque femina, omnes enim unum sumus in Christo Iesu' (Kol. 3, 11). Idem ergo bonus et sapiens negociator sanctus chorus apostolorum, querit bonas margaritas, hoc est lex et propheta, sive omnis anima credens in Deum. Querit istas bonas margaritas, hoc est apostolos et prophetas et patriarchas, per quos possit ad illam veram et preciosam pervenire margaritam. Isti sunt lapides sancti, qui volvuntur super terram. Cum ergo istos memoratos ille bonus negociatur invenerit illam preciosam margaritam, id est Dominum Nostrum Iesum Christum, filium Dei vivi, emit venditis omnibus facultatibus suis, id est contempnens et aspernens non solum istius vite substantiam, set eciam uxorem et filios et omnem cognationem carnalem, insuper et corpus suum et animam, sicut veritas dicit (Matth. 10, 39): 'Quicumque perdiderit animam suam propter me, inveniet eam.' Hec omnia videns apostolorum chorus, non aurum accipit, neque argentum, sicut ait beatus Petrus ad illum claudum stipem petentem (Ap. G. 3, 6): 'Argentum, inquid, et aurum non est michi, quod autem habeo, hoc tibi do. In nomine Domini Nostri Iesu Christi surge et ambula.' Et Paulus dicit: 'omnia, inquid, quecumque michi erant lucra, hec propter Christum arbitratus eum dampna, propter eminentem innocentiam Christi' (Phil. 3, 8). Quis ergo consideranter contempserit omnes facultates suas uxoremque et filios et omnem cognationem suam, insuper et corpus et animam propter unius margarite adquisicionem; nisi certissime confisus fuerit et crediderit posse se per unam margaritam adquirere, satis maiores et meliores divitiarum facultates precellentioremque honorem insuper et glorie coronam? Que omnia ille negociator possidet, qui est apostolorum chorus per unum illum lapidem preciosum Dominum Iesum Christum, qui est vera margarita, via et veritas et vita nostra. Denique audi ipsum in ewangelio dicente (Luc. 10, 19): 'Ecce, inquid, vobis dedi potestatem spirituum inmundorum et calcandi super (omnes) serpentes et scorpiones et super omnem virtutem diabolicam et sanare omnes lang[u]ores et omnes infirmitates.' Et iterum: 'Euntes praedicate, quoniam appropinquavit regum celorum. Infirmos curate, leprosos mundate, cecos illuminate, mortuos suscitate, demonia eicite' (Matth. 10, 1, 8). Videte nunc quam inestimabilis sit ista margarita sanctis martiribus, qui non solum cum in hac vita essent, set eciam post huius vite excessum mira egerunt, sicut nunc videmus quomodo in obsessis corporibus spiritus inmundi illorum virtute et potestate torquentur et cruciantur et invisibilibus flagris verberantur quousque eiciantur et effugentur ab hominibus, sicut ipsi demones audientibus nobis exclamant vociferantes et rogant eos, ut cessent torquere eos, tamen ut sunt varii et multiformes, alii clamantes, alii rugientes, et sicut serpentes sibilant et fugantur ab obsessis corporibus hominum per apostolorum atque omnium sanctorem virtutes, que illis secundum merita sua a Domine date sunt. Honorem vero illum transcendentem et supereminentem omnibus terrenis honoribus sortiti sunt ab illo precioso lapide, pro quo omnia sua dimiserunt, ut illum celestem thesaurum possiderent qui aiunt ad Salvatorem (Matth. 19, 27 f.): 'Ecce nos quidem dimisimus uxores et filios et omnes possessiones propter te, quid facies nobis in regno tuo?' Et ille dicit eis: 'Amen dico vobis, cum sederit filius hominis in sede maiestatis sue ad iudicandum orbem terre, sedebitis et vos super sedes XII iudicantes XII tribus Israel.' Unde satis confidens Paulus apostolus dicit (1. Kor. 6, 2): 'Scitis

quoniam angelos iudicabimus? Et in nobis iudicabitur hic mundus.' Tanta enim gloria et tanto honore remuneratus est apostolorum chorus, ut eciam in hoc seculo adhuc positus legitimus ille athleta Christi Paulus previderit in celis iusticie sue coronam sicut exultans ait (2. Tim. 4, 7 f.): 'Bonum certamen certavi, cursum consummavi, fidem servavi; de cetero reposita est michi corona iusticie, quam reddet mihi Dominus in illa die iustus iudex; non solum autem michi set et omnibus qui deligunt presenciam regni eius.' Talem coronam merentur a Christo beatorum apostolorum chori, talem retributionem recipiunt pro cor[r]uptibilibus."[1]

Mermecolion is, of course, a blunder, since it is a totally different animal. Here it is merely a misread Arab. مرجان *marǵān*, taken as مرجلن *marǵalan*, which produced *mermecolion.* Similarly *sabea* is Arab. سبية *sabiyyah* "shell," which I have already discussed. There cannot be the slightest doubt, therefore, that this Homily on the Virgin Mary is based on an Arabic text. This is brought out most strongly in the sentence, "matutinis autem horis, quod dixit, tempus orationis in matutinis describit," which, like the preceding "hic ergo de fundo maris in matutinis horis ascendere dicitur," points to an insertion, since everything else ought to have similarly had "quod dixit" or "dicitur." In reality the first sentence is conditioned by the preceding statement, "castam atque intactam virginem Mariam significans," which in Arabic would have had the word بكر *bikr* "virgin, unperforated pearl."

But the Latin version is also based on a Syriac source, no doubt through an Arabic intermediary. "Iste autem negociator est utique chorus apostolorum.

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[1] M. F. Mann, *Der Bestiaire divin des Guillaume le Clerc*, Heilbronn 1888, in *Französische Studien*, vol. VI^2, p. 71 ff.

Omnes enim apostolos unum negociatorem dicit propter unitatem fidei." This is based on Ephraem's Fifth Rhythm of *The Pearl:* "Oh, gift that camest up without price with the diver! Thou laidest hold upon this visible light, that without price riseth for the children of men: a parable of the hidden One that without price giveth the hidden Day-spring! And the painter too painteth a likeness of thee with colours. Yet by thee is faith painted in types and emblems for colours, and in the place of the image by thee and thy colours is thy Creator painted. O thou frankincense without smell, who breathest types from out of thee! thou art not to be eaten, yet thou givest a sweet smell unto them that hear thee! thou art not to be drunk, yet by thy story, a fountain of types art thou made unto the ears! It is thou who art great in thy littleness, O pearl! Small is thy measure and little thy compass with thy weight, but great is thy glory: to that crown alone in which thou art placed, there is none like. And who hath not perceived of thy littleness, how great it is; if one despiseth thee and throweth thee away, he would blame himself for his clownishness, for when he saw thee in a king's crown he would be attracted to thee. Men with their clothes off dived and drew thee out, pearl! It was not kings that put thee before men, but those naked ones who were a type of the poor and the fishers and the Galileans; for clothed bodies were not able to come to thee; they came that were stript as children; they buried their bodies and came down to thee, and thou didst much desire them, and thou didst aid them who thus loved thee. Glad tidings did they give for thee: their tongues before their bosoms did the poor [fishers] open and produced and shewed the new riches among the merchants: upon the wrists of men they put thee as a medicine of life. The naked ones in a type saw thy rising again by the seashore;

and by the side of the lake they, the Apostles, truly naked, saw the rising again of the Son of thy Creator. By thee and by thy Lord the sea and the lake were ornamented. The diver came up from the sea and put on his clothing! and from the lake too Simon Peter came up swimming and put on his coat; clad as with coats, with the love of both of you, were either party. And since I have wandered in thee, pearl, I will gather up my mind, and by having contemplated thee, would become like thee, in that thou art all gathered up into thyself, and as thou in all times art one, one let me become by thee! Pearls have I gathered together that I might make a crown for the Son in the place of stains which are in my members. Receive my offering, not that Thou art shortcoming; it is because of mine own shortcoming that I have offered it to Thee. Whiten my stains! This crown is all spiritual pearls, which instead of gold are set in love, and instead of ouches in faith; and instead of hands, let praise offer it up to the Highest!"[1]

This whole Rhythm is based on the punning of ܫܠܺܝܚܳܐ *šlīḥā* "naked, apostle," which runs through several of the Rhythms. It will be observed that in this hymn there is no reference to the morning conception of the pearl, nor is there a word about it in any other of Ephraem's Rhythms, nor in his very elaborate *Sermo adversus haereticos*, which is dealing with the pearl. In the Rhythm under discussion there is, however, an important reference to the pearl being "the One," because Christ is one, an idea which was made imperative from Matth. XIII. 45. Several contemporary Greek and Latin Fathers have the same idea. Thus Clement of Alexandria says, «ἐν πολλοῖς γὰϱ τοῖς μαϱγαϱίταις τοῖς μιϰϱοῖς ὁ εἷς»,[2] and, in another place, he makes it clear that "the one" is Christ: «ὁ δὲ πολυτίμητος μαργαρίτης ὑπερφυῶς τῇ γυναικωνίτιδι εἰσεκώμασε· γίνεται δὲ οὗτος ἐν ὀστρίῳ τινὶ παραπλησίῳ ταῖς πίνναις· μέγεθος δὲ ἡλίκος ἰχθύος ὀφθαλμὸς, εὐμεγέθης· καὶ οὐκ αἰσχύνονται αἱ κακοδαίμονες, περὶ ὄστριον ὀλίγον τοῦτο τὴν πᾶσαν σπουδὴν πεποιημέναι, ἐξὸν ἁγίῳ κοσμεῖσθαι λίθῳ, τῷ Λόγῳ τοῦ Θεοῦ, ὃν Μαργαρίτην ἡ Γραφὴ κέκληκέ που, τὸν διαυγῆ καὶ καθαρὸν Ἰησοῦν, τὸν ἐν σαρκὶ ἐπόπτην ὀφθαλμὸν, τὸν Λόγον τὸν διαφανῆ, δι' ὃν ἡ σὰρξ τιμία ὕδατι ἀναγεννωμένη· καὶ γὰρ τὸ ὄστριον ἐκεῖνο ἐν ὕδατι γιγνόμενον, περιστέγει τὴν σάρκα· ἐκ δὲ ταύτης ὁ μαργαρίτης κυΐσκεται».[1]

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[1] J. B. Morris, *Select Works of S. Ephrem the Syrian*, Oxford 1847, p. 97 f.
[2] *Stromata*, I. 1, in Migne, *P. G.*, vol. VIII, col. 705.

The same thing is implied by Hilary: "Est uia per Moysen, est per Iesum, est per Dauid, est per Esaiam, est per Ieremiam, est per apostolos; et per has omnes necesse est ad eum perueniri, qui dixit: ego sum uia et nemo uadit ad patrem nisi per me. Simile quiddam sub margaritae nomine dictum esse intellegendum est. Multarum enim margaritarum negotiatorem esse oportet, ut unam margaritam multi pretii consequatur. De margaritis cum fit sermo, sufficit ad honorem earum, quod margaritae sunt nuncupatae; una autem illa margarita, quae reperta est, magni esse pretii dicitur; ita et cum de uiis plurimis prophetatur, quod et domini et aeternales sint, dictum est; cum autem in his uiis quaeritur, quae sit utilis uia, ea, quae reperta est, optima praedicatur. Ergo, quamuis uel illae uiae aeternales sunt uel margaritae ipso suo nomine honorabiles sunt, in multis uiis standum est, ut bona uia reperiatur, et uendendae omnes margaritae sunt, ut ea, quae multi pretii est reperta, coematur."[2]

There is a letter, ascribed to Hilary, in which there is similarly reference to the one pearl, but this letter is unquestionably of a later date, since it contains the development of the pearl into a life-saving amulet, and so is the predecessor of the *ḥarz Murǵānah:* "Dilectissimae filiae Abrae Hilarius in Domino salutem. (1) Abra patris absentiam dolet.—Accepi litteras tuas, in quibus intelligo desiderantem te mei esse: et certum ita habeo. Sentio enim quantum praesentia horum qui amantur optabilis sit. Et quia gravem tibi esse absentiam meam scirem, ne me forte impium esse erga te existimares, qui tam diu a te abessem: excusare tibi et profectionem meam et moras volui, ut intelligeres me non impie tibi, sed utiliter deesse. Namque cum te, filia, ut unicam, ita, quantum a me est, et unanimem habeam; vellem te pulcherrimam omnium et sanissimam vivere.

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[1] *Paedagogi,* II. 12, *ibid.,* col. 540.

[2] *Tractatus in Psalmum CXVIII,* Aleph. 10, in *CSEL.,* vol. XXII, p. 365 f.

"(2) Hilarius abest, ut vestem et margaritam pretiosam filiae conquirat.—Nuntiatum ergo mihi est, esse quemdam juvenem, habentem margaritam et vestem inaestimabilis pretii: quam si quis ab eo posset mereri, super humanas divitias et salutem et dives et salvus fieret. Ad hunc his auditis profectus sum: ad quem cum per multas et longas et difficiles vias venissem, videns eum statim procidi. Adest enim tam pulcher juvenis, ut ante conspectum ejus nemo audeat consistere. Qui ubi me procidisse vidit, interrogari me jussit quid vellem, et quid rogarem: et ego respondi, audisse me de veste sua et margarita, et ob id venisse; et si eam mihi dignaretur praestare, esse mihi filiam quam vehementer diligerem, cui hanc vestem atque margaritam quaererem. Et inter haec prostratus in faciem fleo plurimum, et noctibus ac diebus ingemiscens, rogo uti audire dignaretur precem meam.

"(3) Vestis haec et margarita quanti facienda.—Post quae, quia bonus est juvenis et melius illo nihil est, ait mihi, Nosti hanc vestem atque hanc margaritam, quam a me lacrymis rogas uti eam filiae tuae

concedam? Et ego respondi illi, Domine, auditu cognovi de ipsis, et fide credidi: et scio quia optimae sunt, et salus vera est hac veste uti, et hac margarita ornari. Et statim ministris suis praecepit, ut mihi et vestem hanc et margaritam ostenderent: et confestim ita fit. Ac vestem primo vidi: vidi, filia, vidi quod eloqui non possum. Numquid non sericum secundum subtilitatem ejus spartum erat? Numquid candori ejus nives comparatae non nigrescebant? Numquid aurum juxta fulgorem ejus non lividatur? Ipsa enim multicolor, et nihil prorsus comparatum ei poterat aequari. Post quam vidi margaritam: qua visa statim concidi. Non enim potuerunt oculi mei sustinere tantum ejus colorem. Nam nec coeli, nec lucis, nec maris, nec terrae species pulcritudini ejus poterat comparari.

"(4) Utriusque commoda et dotes.—Et cum prostratus jacerem, ait mihi quidam de assistentibus, Video te sollicitum et bonum patrem esse, et hanc vestem atque hanc margaritam ad filiam tuam desiderare: sed ut magis desideres, ostendo tibi quid adhuc haec vestis atque margarita boni habeat. Vestis haec numquam tineis comeditur, non usu atteritur, non sorde inficitur, non vi scinditur, non damno amittitur: sed semper talis qualis est permanet. Margaritae vero haec virtus est, ut si quis eam induerit, non aegrotet, non senescat, non moriatur. Nihil omnino in se habet, quod sit noxium corpori: sed utenti ea nihil accidit, quod aut mortem afferat, aut aetatem demutet, aut impediat sanitatem. Quod ubi audivi, filia, exanimari magis desiderio margaritae et vestis istius coepi: et sicut prostratus jacebam, indeficienti fletu et intenta oratione juvenem precari coepi, dicens: Domine sancte, miserere preci meae, et miserere sollicitudini et vitae meae. Si enim hanc vestem mihi et margaritam non concedis, miser futurus sum, filiamque meam viventem perditurus: ego propter hanc vestem et margaritam peregrinari volo. Scis, Domine, quia tibi non mentior.

"(5) Hilarii filiae promittuntur, modo vana ornamenta abjiciat.—Post quam vocem meam audivit, jubet me levare; et ait mihi, moverunt me preces et lacrymae tuae, et bene est quod hoc credidisti. Et quia dixisti, te pro hac margarita ipsam vitam tuam velle impendere, non possum eam tibi negare: sed scire debes propositum et voluntatem meam. Vestis, quam ego dedero, talis est, ut si quis voluerit veste alia colorata et serica et aurata uti, vestem meam capere non possit. Sed illi dabo eam, quae contenta sit, non serico habitu, sed nativis coloribus et insumptuoso textu vestiri: ita ut propter consuetudinem, purpuram perangustam vestis habeat: non etiam purpura ipsa diffundatur in vestem. Margarita vero, quam a me petis, naturae ejus est, ut habere eam nemo possit, qui margaritam aliam habuerit: quia aliae margaritae aut de terra aut de mari sunt; mea autem, ut ipse tu vides, speciosa et pretiosa est, incomparabilis et coelestis est, nec dignatur ibi esse ubi aliae sunt. Non enim rebus meis convenit cum rebus hominis: quia qui veste mea et margarita utitur, in aeternum sanus est; non febre exardescit, non vulneri patet, non annis demutatur, non morte dissolvitur; aequalis enim semper et aeternus est. Ego tamen hanc vestem et hanc margaritam meam petenti tibi dabo, ut eam filiae tuae perferas. Sed prius scire debes quid velit filia tua. Si se hujus vestis et margaritae meae dignam faciat, id est, si vestes sericas et auratas et infectas habere noluerit, si omnem margaritam alteram oderit; tunc haec quae me rogas tibi praestabo.

"(6) Filiam hortatur ut modestis utatur vestibus.—Post quam vocem, filia, laetus exsurgo, et secretum hoc habens, hanc ad te epistolam feci: rogans te per multas lacrymas meas, ut te huic vesti et margaritae reserves, neque miserum senem tali damno tuo facias, si hanc vestem et hanc margaritam non habueris. Testor autem tibi, filia, Deum coeli et terrae, quia nihil hac veste atque hac margarita pretiosius est; et tui juris est, ut hanc habeas. Tu modo, si quando tibi vestis alia afferatur, vel serica, vel infecta, vel deaurata, dicito ei qui tibi offert: Ego vestem alteram exspecto, propter quam pater meus a me tam diu peregrinatur, quam mihi quaerit, quam non possum habere si hanc habuero. Sufficit mihi lana ovis meae, sufficit mihi color quem natura attulit, sufficit mihi textus insumptuosus: caeterum vestem illam desidero, quae dicitur non absumi, non atteri, non scindi. At vero si tibi margarita offeratur aut suspendenda collo, aut digito coaptanda, dices ita, Non mihi impedimento sint istae inutiles et sordidae margaritae: sed exspecto illam pretiosissimam, pulcherrimam et utilissimam. Credo patri meo, quia et ille ei, qui hanc spopondit sibi, credidit, propter quam mihi significavit se etiam mori velle: hanc exspecto, hanc desidero, quae mihi praestabit salutem et aeternitatem.

"(7) Filiae exspectat rescriptum. Hymnus matutinus et serotinus. Abrae mater.—Ergo, filia, subveni sollicitudini meae, et hanc epistolam meam semper lege, et huic vesti et margaritae te reserva. Et ipsa tu mihi, nullum interrogans, quibuslibet potes litteris rescribe, utrum vesti huic et margaritae te reserves, ut sciam quid juveni illi respondeam: et ut si illam desideras, si exspectas, laetus possim ad te reditum cogitare. Cum autem mihi rescripseris, tunc tibi et ego quis sit hic juvenis, et qualis sit, et quid velit, et quid promittat, et quid possit, indicabo. Interim tibi hymnum matutinum et serotinum misi, ut memor mei semper sis. Tu vero si minus per aetatem hymnum

et epistolam intellexeris, interroga matrem tuam, quae optat ut te moribus suis genuerit Deo. Deus qui te genuit, hic et in aeternum custodiat opto, filia desideratissima."[1]

All the Latin writers who commented upon Matthew XIII. 45, 46 have brought out the same idea, that the pearl is the "One," that is, Christ: "Quaestio est cur a numero plurali ad singularem transierit, ut cum quaerat homo bonas margaritas, *unam* inveniat pretiosam, quam venditis omnibus quae habet, emat. Aut ergo iste bonos homines quaerens, cum quibus utiliter vivat, invenit unum prae omnibus sine peccato, mediatorem Dei et hominum, hominem Christum Jesum: aut praecepta quaerens, quibus servatis cum hominibus recte conversetur, invenit dilectionem proximi, in quo uno dicit Apostolus omnia contineri; ut, Non occides, non moechaberis, non furaberis, non falsum testimonium dices, et si quod est aliud mandatum, singulae margaritae sint, quae in hoc sermone recapitulantur, Diliges proximum tuum tanquam teipsum. Aut bonos intellectus homo quaerit, et invenit unum illud quo cuncti continentur, in principio Verbum, et Verbum apud Deum, et Verbum Deum, lucidum candore veritatis, et solidum firmitate aeternitatis, et undique sui simile pulchritudine divinitatis, qui Deus, penetrata carnis testudine, intelligendus est. Ille enim ad margaritam ipsam jam pervenerat, quae in tegumentis mortalitatis, quasi concharum obstaculo, in profundo hujus saeculi, atque inter duritias saxeas Judaeorum aliquando latuerat: ille ergo ad ipsam margaritam jam pervenerat, qui ait, Et si noveramus Christum secundum carnem, sed nunc jam non novimus. Nec ullus

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[1] Migne, *P. L.*, vol. X, col. 549 ff.

omnino intellectus margaritae nomine dignus est, nisi ad quem discussis omnibus carnalibus tegminibus pervenitur, quibus sive per verba humana, sive per similitudines circumpositas operitur, ut purus et solidus et nusquam a se dissonans, certa ratione cernatur. Quos tamen omnes veros et firmos et perfectos intellectus unus ille continet, per quem facta sunt omnia, quod est Verbum Dei. Quodlibet autem horum trium sit, vel si aliquid aliud occurrere potuerit, quod *margaritae unius* et pretiosae nomine bene significetur, pretium ejus est nos ipsi: qui ad eam possidendam non sumus liberi, nisi omnibus pro nostra liberatione contemptis, quae temporaliter possidentur. Venditis enim rebus nostris, nullum earum majus accipimus pretium, quam nos ipsos; quia talibus implicati, nostri non eramus: ut rursus nos ipsos pro illa margarita demus, non quia tanti valeamus, sed quia plus dare non possumus."[1]

"Rursum coeleste regnum negotiatori homini simile dicitur, qui bonas margaritas quaerit, sed *unam pretiosam* invenit, quam videlicet inventam, omnia vendens emit, quia qui coelestis vitae dulcedinem, in quantum possibilitas admittit, perfecte cognoverit, ea quae in terris amaverat libenter cuncta derelinquit; in comparatione ejus vilescunt omnia, deserit habita, congregata dispergit, inardescit in coelestibus animus, nil in terrenis libet, deforme conspicitur quidquid de terrenae rei placebat specie, quia sola pretiosae margaritae claritas fulget in mente."[2]

"Inventa *una margarita* pretiosa, omnia quae habuit vendidit; quia in comparatione coelestis vitae omnia habita vilescunt. Si vero sanctos homines scrutare vis, *unum Jesum Christum*, qui absque culpa est, omnibus meliorem invenies."[3]

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[1] St. Augustine, *Quaestiones septemdecim in Matthaeum,* in Migne, *P. L.*, vol. XXXV, col. 1371 f.

[2] Gregory, *Homilia XII*, *ibid.*, vol. LXXVI, col. 1115.

[3] Bede, *In Matthaei evangelium expositio*, *ibid.*, vol. XCII, col. 69.

"Aliis quidem verbis, et alio loquendi genere idipsum repetere ornatissime videtur, non ut immutet eamdem sapientiam, sed ut introducat ad eam variis sententiarum aenigmatibus, audientes. Nisi quod solum videtur negotiatorem longe jam diu in lege versantem amplius designare, quamvis omnes qui fidem sectantur Christi generaliter possit haec parabola evidenter colligere. Nam in eo quod negotiatorem eum vocat, et quaerere bonas margaritas, multum diuque praenuntiat, et eos per speciem unius hominis designat, qui longo ac diutino labore ad margaritarum scientiam venire desiderant. Deinde cum jugi meditatione negotiatus fuerit in lege, et eas quae in lege sunt, deprehenderit intelligentias, tandem aliquando, inter eas quas repererat invenit *unam et singularem margaritam Christum* quam optabat. In cujus comparatione, licet bona sit lex, bona sit et prophetia, seu quae in his praecipua inveniuntur doctrinae ornamenta, homo negotiator similis Pauli apostoli, omnia legis prophetarumque mysteria et observationes pristinas, in quibus inculpate prius vixerat, quasi purgamenta contemnit et quisquilias, ut Christum lucrifaciat; quia pretiosissimum est margaritum, scientia Salvatoris, et sacramentum passionis illius, et resurrectionis arcanum. Non quia inventio hujus pretiosissimae margaritae condemnatio sit veterum margaritarum, sed quia in comparatione Christi omnis gemma, id est legis et prophetiae intelligentia, sit vilior. Potest et per hunc gemmarum diligentissimum negotiatorem, universus Ecclesiae Christi ordo designari, ut ostendatur genus in specie, et regnum coelorum ipsa intelligatur Ecclesia, quae longe diu multumque laboravit in patriarchis, quasivit in Prophetis, quamvis latenter; quia necdum erat propalata sanctorum gloria. Tamen in eis multi gemmarum speciem afferebant, et praeornabant praefigurando Christum futuram Ecclesiam. Sed nemo in

eis inventus est, qui pretium humanae redemptionis in se afferret, et ideo nemo inventus est lapis tam pretiosus propter quem omnia quae praesentis vitae sunt hic prudens negotiator venderet, tantum ut hanc solam acquireret gemmam, in qua sunt omnes thesauri sapientiae et scientiae, et pretium humanae salutis. Et ideo eo pretio emitur iste pretiosissimus lapis, quo supra in illa alia parabola emptus est ager et thesaurus. Non quod alii lapides quos quaesivit praesens negotiator, et forte invenit, boni non fuerint et pretiosi, sed in comparatione istius nemo bonus, quia omnes ex isto habent ut boni sint et pretiosi. Hic est calculus novus ex Apocalypsi Joannis, in quo nomen novum est conscriptum, quem nemo novit, nisi qui accipit. Unde oportet ut omnis umbra removeatur a sensu legis et Prophetarum, et sola veritas amplectatur; distrahatur praesens vita, et quae praesentiarum sunt, ut haec sola habeatur in qua omnia sunt bona et sempiterna sunt. Et notandum quia non dicitur praesens negotiator quantum emerit eam, sed tantum quicunque invenerit eam, quantum habuerit."[1]

We have already seen that Jerome similarly called the pearl "the One." Nowhere have we so far met even a distant reference to the pearl as *unio*. Had such a word existed in the Latin language, Jerome and St. Augustine could not possibly have missed this proof of the oneness of the pearl. St. Augustine quotes Pliny frequently, and Jerome specifically refers to the XXXVII. book of Pliny.[2] And yet we find *unio* in one of Jerome's letters, namely to Rusticus Monachus. There can be little doubt that this letter is as much a forgery as the treatise on monks ascribed to Jerome. This CXXV. letter is clearly a cento from Jerome's writings, and the greater part of the introduction is an ill-digested elaboration from Jerome's works, which bears but a distant reference to the matter under discussion. A comparison of a few passages will show the manner in which the letter was composed.

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[1] Paschasius, *Expositio in Matthaeum*, *ibid.*, vol. CXX, col. 504 f.

[2] "De natura autem duodecim lapidum atque gemmarum, non est hujus temporis dicere, cum et Graecorum plurimi scripserint et Latinorum. E quibus duos tantum nominabo, virum sanctae et venerabilis memoriae episcopum Epiphanium, qui insigne nobis ingenii et eruditionis suae reliquit volumen, quod inscripsit περὶ λίθων; et Plinium secundum, eumdem apud Latinos oratorem et philosophum, qui in opere pulcherrimo naturalis historiae tricesimum septimum librum, qui et extremus est, lapidum atque gemmarum disputatione complevit," *Commentarium in Isaiam prophetam*, XV. 54, *ibid.*, vol. XXIV, col. 523; "super quibus et vir sanctus Epiphanius

Epistola CXXV	
Non mihi nunc per virtutum prata ducendus est rivulus: nec laborandum, ut ostendam tibi variorum pulchritudinem florum: quid in se lilia habeant puritatis, quid rosa verecundiae possideat, quid violae purpura promittat in regno, quid rutilantium spondeat pictura gemmarum (Migne, *P. L.*, vol. XXII, col. 1073).	Quarum altera te per prata virentia, et varios divinorum Voluminum flores ducat ad eum qui dicit in Cantico: Ego flos campi, et lilium convallium (*Ad Principiam Virginem*, in Migne, *P. L.*, vol. XXII, col. 624).
Navigantes Rubrum mare, in quo optandum nobis est, ut verus Pharao cum suo mergatur exercitu, multis difficultatibus ac periculis ad urbem Auxumam perveniunt. Utroque in littore Gentes vagae, imo belluae habitant ferocissimae. Semper solliciti, semper armati, totius anni vehunt cibaria. Latentibus saxis vadisque durissimis plena sunt omnia, ita ut speculator, et doctor in summa mali arbore sedeat, et inde regendae, et circumflectendae navis dictata praedicet. Felix cursus est, si post sex menses supradictae urbis portum teneant, a quo se incipit aperire Oceanus; per quem vix anno perpetuo ad Indiam pervenitur, et ad Gangem fluvium (quem Phison Sancta Scriptura commemorat) qui circumit totam terram Evila, et multa genera pigmentorum de paradisi dicitur fonte	Evila, ubi aurum purissimum (quod Hebraice dicitur *zaab* et gemmae pretiosissimae, carbunculus, smaragdusque nascuntur. Est autem regio ad Orientem vergens, quam circumit de paradiso Phison egrediens: quem nostri, mutato nomine, Gangen vocant (*Liber de*

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episcopus proprium volumen mihi praesens tradidit. Et XXXVII liber Plinii Secundi, Naturalis Historiae, post multiplicem omnium rerum scientiam, de gemmis et lapidibus disputat," *Commentarium in Ezechielem*, IX. 28, *ibid.*, vol. XXV, col. 271.

devehere. Ubi nascitur carbunculus, et smaragdus; et margarita candentia, et uniones, quibus nobilium feminarum ardet ambitio (*ibid.*, col. 1073 f.).	*situ et nominibus, ibid.*, vol. XXIII, col. 892). Fison, quod interpretatur, caterva: fluvius quem nostri Gangen vocant, de paradiso exiens, et pergens ad Indiae regiones, post quas erumpit in pelagus. Dicit autem Scriptura circumiri ab hoc universam regionem Evila, ubi aurum praecipuum nascitur et Carbunculus lapis et Prasinus (*ibid.*, col. 897).
Montesque aurei, quos adire propter gryphas, et dracones, et immensorum corporum monstra, hominibus impossibile est: ut ostendatur nobis, quales custodes habeat avaritia (*ibid.*, col. 1074).	Dicuntur autem dracones in eis locis secretis, et terrarum abditis sinibus, vel maxime commorari, ubi metallum auri sit (*Comment. in librum Job, ibid.*, vol. XXVI, col. 795).
Totum quod apprehensa manu insinuare tibi cupio, quod quasi doctus nauta, post multa naufragia, rudem conor instruere vectorem, illud est, ut in quo littore pudicitiae pirata sit noveris; ubi Charybdis, et radix omnium malorum avaritia; ubi Scyllaei obtrectatorum canes, de quibus Apostolus loquitur: Ne mordentes invicem, mutuo consumamini, quomodo in media tranquillitate securi, Lybicis interdum vitiorum Syrtibus obruamur; quid venenatorum animantium, desertum hujus saeculi nutriat (*ibid.*, col. 1073).	Et hoc ego, non integris rate, vel mercibus, nec quasi ignarus fluctuum doctus nauta praemoneo; sed quasi nuper naufragio ejectus in littus, timida navigaturis voce denuntio. In illo aestu Charybdis luxuriae, salutem vorat. Ibi ore virgineo, ad pudicitiae perpetranda naufragia, Scyllaeum renidens libido blanditur. Hic barbarum littus, hic diabolus pirata, cum sociis portat vincula capiendis (*ibid.*, vol. XXII, col. 350 f.).

The last extract shows, beyond any possibility of mistake, the eclectic method of the forger. In Jerome the sirens wreck the "pudicitia" and the devil is the "pirata" who carries the fetters. In the letter to Rusticus Monachus the same "doctus nauta" tells the monk on what shore the "pirata pudicitiae" is, without defining either word. Hence the *uniones* of the same letter, which is found in neither extract from the *Liber de situ et nominibus*, originally by Eusebius, is a late word, certainly of no earlier date than the VIII. century.

We also have *uniones* in Tertullian's *De cultu foeminarum*, and it will be shown, from the comparison of a passage in this work with a passage in Cyprian's *Liber de habitu virginum*, that the first, at least in the form in which we have it, is a forgery, based on the second.

Cyprian, *Liber de habitu virginum*, XIV.	Tertullian *De cultu foeminarum*, II. 10.
Neque enim Deus coccineas aut purpureas oves fecit, aut herbarum succis et conchyliis tingere et colorare lanas docuit.	Nimirum enim Deus demonstravit succis herbarum et concharum salivis incoquere lanas. Exciderat illi, cum universa nasci juberet, purpureas et coccineas oves mandare: Deus et ipsarum vestium officinas commentus, quae leves et exiles solo pretio graves essent.
Nec distinctis auro lapillis et margaritis contexta serie et numerosa compage digestis monilia instituit, quibus cervicem quam fecit absconderes, ut operiatur illud quod Deus in homine formavit, et conspiciatur id desuper quod diabolus adinvenit.	Deus et auri tanta opera produxit, complectendis et distinguendis lapillis.
An vulnera inferri auribus Deus voluit, quibus innocens adhuc infantia et mali saecularis ignara crucietur, ut postea de aurium cicatricibus et cavernis pretiosa grana dependeant, gravia etsi non suo pondere, mercium tamen quantitate?	Scrupulosa Deus auribus vulnera intulit, et tanti habuit vexationem operis sui et cruciatus infantiae tunc primum dolentis, ut ex illis ad ferrum nati corporis cicatricibus grana nescio quae penderent, quae plane Parthi per omnia quaeque sua bullarum vice inserunt, quanquam et aurum ipsum, cujus vos gloria occupat, cuidam genti ad vincula servire referunt gentilium litterae. Adeo non veritate bona sunt, sed raritate.
Quae omnia peccatores et apostatae angeli suis artibus prodiderunt quando, ad terrena contagia devoluti, a coelesti vigore recesserunt (Migne, *P. L.*, vol. IV, col. 452 f.).	Artibus autem per angelos peccatores, qui et ipsas materias prodiderunt, inductis, operositas cum raritate commissa pretiositatem et ex ea libidinem possidendae pretiositatis foeminarum excitavit (Migne, *P. L.*, vol. I, col. 1327 f.).

Obviously Tertullian could not have expanded on Cyprian, since the latter became a Christian 27 years after the death of the first. Cyprian could not have remodeled Tertullian, since the passage in Tertullian is silly and impossible in spots, whereas Cyprian's passage is clear and consistent. Cyprian correctly speaks of the precious gems, "heavy, not in weight, but in costliness." Tertullian stupidly transfers this to the garments, "which are light and delicate, but heavy in cost," and so is compelled to speak of the gems "which are good not by their truth, but by rarity," in order to shine with the pun "veritate raritate."

Cyprian correctly speaks of the torture of infants whose ears are pierced so that they later may wear precious gems in their ears. Tertullian stupidly speaks of the wounds of the body "born for the iron," in which the Parthians insert *grana* in place of ornaments. One MS. reads, "quae plane Parthi peronibus quoque suis bullarum vice inserunt," "which the Parthians put in their boots in place of ornaments." Nowhere else do we hear of Parthians who do either of these things. The whole is due to a blundering reading of a passage of Solinus, which is itself of the VIII. century, since it refers to the tattooing of the Britons:[1] "Regionem *partim* tenent barbari, quibus per artifices plagarum figuras iam inde a pueris variae animalium effigies incorporantur, inscriptisque visceribus hominis incremento pigmenti notae crescunt: nec quicquam mage patientiae loco nationes ferae ducunt, quam ut per memores cicatrices plurimum fuci artus bibant."[2] The forger read *partim* as *Parti* and made out a race of Parthians who wore in the scarified wounds *grana*, whatever that meant to him, in place of ornaments. A later editor of the text misread "per omnia" as "peronibus," and had these gems placed in the boots of the Parthians. The forger of the First Book of the same *De cultu foeminarum*, who is posterior to the forger of the Second Book, expanded the Parthians into Medes and Parthians, and told the following impossible story, which ends with a sentence which makes no sense whatsoever: "Gemmarum quoque nobilitatem vidimus Romae de fastidio Parthorum et Medorum caeterorumque gentilium suorum, coram matronis erubescentem, nisi quod nec ad ostensionem fere habentur. Latent in circulis smaragdi, et cylindros vaginae suae solus gladius sub sinu novit, et *in peronibus uniones emergere de luto cupiunt.* Nihil denique, tam gemmatum habent, quam quod gemmatum esse non debet, si non comparet; aut ideo comparet, ut neglectum quoque ostendatur."[1] This puts the *uniones* so late as to be of no use for the earliest determination of its occurrence.

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[1] See p. 339.
[2] XXII. 12.

Unio also occurs in the *Digest* of Justinian. Here I am saved considerable labor, since it has already been shown that the *Digest* is full of interpolations.[2] Gradenwitz assumes that the classical law authorities were interpolated in Justinian's time, that is, in 533. It has also been observed by Cujaz[3] that there are interpolations in the *Digest* which occur in the *Novellae*, although these appeared ten years later. With easy conscience the writers overcome the difficulty by saying that the laws existed already in 533, but were passed later. This is nonsense, because in this way any irregularity could be explained. The text of the *Digest* depends upon the very precious *Codex Florentinus*,[4] which is supposed to be contemporaneous with *Justinian*. But Mommsen[5] says that it is impossible to determine the exact date of its writing, because of the uncertain condition of the palaeography, although it is probable that it was written in the VII. century. An inspection of the phototypic reproduction shows such a mixture of uncial and Rustic Capital writings, the latter generally appearing in titles, that there can be little doubt that the writing is not earlier than of the end of the VIII. century. Sometimes the whole caption is in capitals, sometimes only a letter or two. The two-columned text bears a remarkable resemblance to that of the *Utrecht Psalter*, which is placed in the IX. century. Hence the interpolations and the quotations from later laws belong to the school of the editors, who cannot be of an earlier date than the end of the VIII. century.

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[1] I. 7, in Migne, *P. L.*, vol. I, col. 1311 f.

[2] O. Gradenwitz, *Interpolationen in den Pandekten*, Berlin 1887, and F. Hofmann, *Die Compilation der Digesten Justinians*, Wien 1900.

[3] Gradenwitz, *op. cit.*, p. 9.

[4] *Digestorum seu Pandectarum codex Florentinus olim Pisanus phototypice expressus*, Roma 1902.

[5] *Digesta Iustiniani Augusti*, Berolini 1870, vol. I, p. XXXX.

"Margarita si non soluta sunt uel qui alii lapides (si quidem exemptiles sint), dicendum est ornamentorum loco haberi: sed et si in hoc sint resoluti ut componantur, ornamentorum loco sunt; quod si adhuc sint rudes lapilli uel margaritae uel gemmae, ornamentorum loco non erunt, nisi alia mens fuit testantis, qui haec quoque, quae ad ornamenta parauerat, ornamentorum loco et appellatione comprehendi uoluit."[1]

It is clear that a *margarita soluta* is a "rudis margarita," and is not yet considered an ornament. But if it is "soluta" for the purpose of being put back into an ornament, it is still an ornament.[2]

"Seia ab herede Publio Maeuio ita legauit: 'Antoniae Tertullae lego auri pondo tot et *unionem* cum hyacinthis': postea *unionem soluit* neque ullum mortis tempore inter ornamenta sua *unionem* reliquit. Quaero, an heres ex causa fideicommissi aestimationem rei, quae in hereditate non est, praestare debeat. Marcellus respondit non debere. Item quaero, si probari possit Seiam *uniones* et hyacinthos quosdam in aliam speciem ornamenti, quod postea pretiosius fecit additis aliis gemmis et margaritis, conuertisse, an hos *uniones* uel hyacinthos petere possit et heres compellatur ornamento posteriori eximere et praestare. Marcellus respondit petere non posse: nam quid fieri potest, ut legatum uel fideicommissum durare existimetur, cum id, quod testamento dabatur, in sua specie non permanserit, nam quodammodo extinctum sit? ut interim omittam, quod etiam dissolutione ac permutatione tali uoluntas quoque uideatur mutata. Lucius Titius testamento scripsit: 'heredem meum uolo fideique eius committo, ut in patriam meam faciat porticum publicam, in qua poni uolo imagines argenteas, item marmoreas': quaero, an legatum ualeat. Marcellus respondit ualere et operis ceterorumque, quae ibi testator poni uoluerit, legatum ad patriam pertinere intellegi: enim potuit aliquod ciuitati accedere ornamentum."[1]

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[1] *Dig.* XXXIV. 2. 25. 11.

[2] B. Brisson, *Opera minora varii argumenti*, Lugduni Batavorum 1749, p. 49 f.

Here we have the same story: an *unio soluta* is the mere pearl, outside of the ornament. We see at once that in this rare acceptation of *soluta* we have a translation of the Arab. قلع *qala*' "the pearl, as found in the East," that is, before being perforated or arranged in a set. But the original meaning of قلع is "loco dimovit, evulsit," which precisely corresponds to the specific meaning here attached to *soluta*. Hence *unio* once more disappears as an early reference.

We get from Ephraem's Third Rhythm an explanation as to why the agate is used in order to get the pearl. We shall later see that the pearl is classed among the white stones, the agate, among the black stones. This is brought out in the beginning of the Third Rhythm, where "the dark Ethiopic women became pearls for the Son:" "Thou dost not hide thyself in thy bareness, pearl! With the love of thee is the merchant ravished also, for he strippeth off his garments, not to cover thee, [seeing] thy clothing is thy light, thy garment is thy brightness, O thou that art bared! Thou art like Eve who was clothed with nakedness. Cursed be he that deceived her and stripped her and left her. The serpent cannot strip off thy glory. In the mysteries that thou typifiest, women are clothed with Light in Eden. Very glistening are the pearls of Ethiopia, as it is written, Who gave thee to Ethiopia [the land] of black men. He that gave light to the Gentiles, both to the Ethiopians and unto the Indians did His bright beams reach. The eunuch of Ethiopia upon his chariot saw Philip: the Lamb of Light met the dark man from out of the bath. While he was reading, the Ethiopian was baptized and glistened with joy, and journeyed on! He made disciples and taught, and out of black men he made men white [as snow]. And the dark Ethiopic women became pearls for the Son; He offered them up to the Father, as a glistening crown from the Ethiopians. The Queen of Sheba was a sheep that had come into the place of wolves; the lamp of truth did Solomon give her, who also married her when he fell away. She was enlightened and went away, but they were dark as their manner was. The bright spark which went down home with that blessed [Queen], held on its shining amid the darkness, till the new Day-spring came. The bright spark met with this shining, and illumined the place."[1]

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[1] *Dig.* XXXIV. 2. 6.

In the Coptic version the pearl in the meadow is called the agate. This arises from Ephraem's Second Rhythm, where Christ is the pearl, and Mary (the pearl), rising from the sea, joins her family who are like gems, but not the pearl, which is "the One:" "Whereunto art thou like? let thy stillness speak to one that heareth thee; with silent mouth speak with us: for whoso heareth the stammerings of thy silence, to him thy type uttereth its silent cry concerning our Redeemer. Thy mother is a virgin of the sea; though he took her not [to wife]: she fell into his bosom, though he knew her not; she conceived thee near him, though he did not know her. Do thou being a type reproach the Jewish women that have thee hung upon them. Thou art the only progeny of all forms which art like to the Word on High, Whom singly the Most High begot. The engraven forms seem to be the type of created things above. This visible offspring of the invisible womb is a type of great things. Thy fair conception was without seed, and without marriage intercourse was thy pure generation, and without brethren was thy single birth. Our Lord had brethren and yet not brethren, since He was an Only-Begotten. O solitary one, thou type exact of the Only-Begotten! there is a type of thine in the crown of kings, [wherein] thou hast brothers and sisters. Goodly gems are thy brethren, with beryls and pearls as thy companions: may gold be as it were thy kinsman, may there be unto the King of kings a crown from thy well-beloved ones! When thou camest up from the sea, that living tomb, thou didst cry out, Let me have a goodly assemblage of brethren, relatives, and kinsmen. As the wheat is in the stem, so thou art in the crown with princes: and it is a just restoration to thee, as if of a pledge, that from that depth thou shouldest be exalted to a goodly eminence. Wheat doth the stem bear in the field; thee doth the head of the king upon his chariot carry about. O daughter of the water, who hast left sea, wherein thou wert born and art gone up to the dry land, wherein thou art beloved: for men have loved and seized and adorned themselves with thee, like as they did that Offspring Whom the Gentiles loved and crowned themselves withal."[1]

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[1] Morris, *op. cit.*, p. 92 f.

Ephraem's prose Sermon *Against the Heretics*,[2] in Greek, contains a complete discussion of the pearl in its symbolic significance and is of great importance, since it confirms the fact so far brought out that the morning birth of the pearl was totally unknown in the IV. century, as has already appeared from the other Greek sources. Unfortunately, the Sermon is too long for insertion here, so I shall confine myself only to the passages which bear upon the pearl.

"The precious (τίμιος) pearl, which is found in the sea, is very valuable, because it is hard to find. It does not furnish food, but glory, nor does it produce slaking of thirst, but renown. Much money is ponderous, but this lightens weight. Though it is small, it can do great things, and it is easy to carry, and is easily brought back to its original place. It is easily hidden, and hard to find. Even so is the Kingdom of Heaven. . . The pearl is a stone born of flesh, for it comes from the oyster shell. Who, therefore, would not believe that God was born of the body of man? Not the coitus of the shells form it, but the conjunction of lightning and water. Even so Christ is conceived in the Virgin, beside lust, the Holy Ghost, beside its mass, producing the substance with God. Neither the pearl, nor the mussel is born, nor does it proceed as a spirit in the form. The pearl is born in the hypostasis, and does not produce another stone. Even so Christ is not mixed with the Divinity, nor a pure man, nor mixed with unmixed Divinity, but as though born in a spiritual form. Christ is no other than born of the Father and of Mary. This stone has not only form, but also substance, even so the Son of God is born in the hypostasis, and not in form. This precious stone partakes of two natures, that it may show Christ, who, since He is the Word of God, is born man of Mary: He did not have a partial nature, for He was no other being, but He has a perfect double nature, lest He love the two. . . Consider the ministry of the imperfect flesh in the pearl, and you will readily believe that Christ was born of a woman. The mussel is not worth an obole, but it has produced a stone more costly than many talents of gold: even so Mary brought forth the Divinity with which nothing can be compared. The shell is not afflicted by any pain while it conceives the pearl, but has only the sense of the accession. And Mary conceived Christ in gladness, feeling the acceding nature. The mussel does not spoil while it conceives and bears, for it brings forth a perfect stone without pain. So does the Virgin conceive without corruption and bear without pain. The pearl is not only conceived, but also lasts while it grows, and even outside of the shell it can show its hypostasis. . The precious stone is indivisible, and no one will separate the assumption of the Divinity. Lightning and water are combined, and two opposites are united. Why do you not know what it is that you hold, and why do you curiously examine what you do not hold? From fire—lightning and fire, whence it both illumines and inflames. The shells grow in water, through water. Why does not the corruscation consume the body of the shell? . . The pearl is most showy, on account of its Divinity, and white, on account of its assumption. In the whiteness you see its clarity, in its virtue you see its inherent power. It is hard, on account of its human nature; it is light, on account of celestial condition. It is watery, on account of its terrestrial nature; it is fiery on account of its divine hypostasis. For all things there is a physical consideration, for everything reflects its nature, as in a mirror. But mirrors are made by art, hence they have a certain fallacy in the perception of a given thing. But the pearl has a natural grace and innate usefulness. There are many other things which become one out of two, but they are not born like the pearl, nor are they conceived of fire and water. Behold, you cannot find the proof in all pearls, for they are not all true, containing all the perfections of which we have spoken, for the greater part of them has something earthy. There are shells that remain in the depth of the ocean; others enjoy mud in humid places; others feed on refuse and rarely produce good pearls. The pearl has also another reason, for if the time of its generation is not perfect, or it is born out of time, it is stony, hence many in the depths are worthless, and if they are not properly polished, they are useless. They do not find many of them, but they take them from the shells, hence they are called perfect, because, while they apparently increase and add the substance to the power of the nature, they are not carried away, but are generated, and these become very precious."

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[1] *Ibid.*, p. 89 f.

[2] *Ephraem Syri Opera omnia quae exstant*, Romae 1743, Graece et latine, vol. II, p. 259 ff.

The Latin *Physiologus* discussed above has drawn for the pearl on Arabic and Syriac sources, the latter proceeding directly from Ephraem. All the other *Physiologi* extant are secondary in their composition and do not proceed directly from the Arabic, but, in all probability, from a Greek translation or rifacimento of the Arabic original. The Latin versions differ from one another and contain various accretions from outside sources. Thus the version in the *Liber glossarum*[1] has only the etymology of *conchus* and the story of the morning birth of the pearl: "*Conchus*, lapis est in mari, graeco vocabulo appellatus hoc, quia convexus est et rotundus. Est autem in duas partes

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[1] A. Mai, *op. cit.*, p. 592.

divisus, ita ut cum voluerit aperiat se, et cum voluerit claudat. Hic ergo de profundo maris ascendit matutinis horis, habet enim intra se carnem. Cum ergo ascenderit diluculo super mari aperit os suum, et suscipit intra se de rore caeli, et circumfulgetur radiis solis; et sic fit intra eum margarita pretiosa splendida; quippe rore caeli concepta, et est de radio solis clarificata."

Another Latin version, given by Cahier as A,[1] ends with the statement: "Urinatores qui sursum fuerunt, *chorus sanctorum* est. Peccatores deorsum eum fuerunt, propter eorum malitiam, quantum adversus ipsius est. Medio autem cone vel duarum alarum, in his invenitur meus Salvator, hoc est veteris et novi Testamenti; a superibus habens escam. Dixit enim Dominus quia regnum meum non est de isto saeculo, sed a sempiterno Patre." Here the *chorus sanctorum* corresponds to the *apostoli* of the previous text, but the whole is set in a new form: the apostles, or saints, are on one scale, the sinners are on another scale, while Christ, the pearl with two wings, is in the middle. This version is followed by the story of the Indian stone, which is practically identical with the scale story, except that the sinners are here the dropsical ones: "Lapis sindicus hanc habet naturam: si fuerit homo aliquis hidropicus, medicorum est ut inquirant lapidem. Si autem invenerint, eum alligant hydropico, et suspendunt lapidem cum homine; et modicus lapis adducit corpus hominis in statera, hoc est in pondere. Si autem dimittitur lapis in sole horis tribus, foetidissimam aquam tollit de corpore hydropici, et effudit eam foris ut sit lapis mundus. Lapis est Dominus noster Iesus Christus; quoniam hydropici fuimus, habentes aquas diaboli in corde. Et descendens, ligatus est lapis horis tribus circa cor nostrum, karitas ejus. Surgens autem a mortuis, omnem intellegibilem infirmitatem animae nostrae sustulit, et infirmitates nostras ipse baiulavit."[1] The same story is told in the Syriac version, where the stone is called ܗܘܢ *hawān*, and where the "theoria" is given more in full: "Quem igitur hunc lapidem depingere judicemus nisi lapidem Christum Dei Filium et verum Deum. Hydropici vero nos homines sumus, qui aquas malas et venenum letale bibimus serpentis illius aspidis nobis hominibus infesti, et in quorum cordibus et ventribus conditi sunt morbus perpetuus et dolor e corde non cessans, sed eo intumuit animae venter, et occidit sol noster in meridie nostro. Venit autem ille lapis salutis et medicinae, et alligatus est cordibus nostris, amore nostro et fide et spe in eo posita, et extulit dolorem nostrum in seipsum et mala nostra suscepit, et sanati sumus a doloribus et malis levati. Ablatus autem est Christus a nobis, morbos nostros auferens ipse innocens, et conditus est in sepulcro per tres dies, et luce resurrectionis gloriosae omne contagium e corpore ejecit, et facta est sanatio maxima iis omnibus qui gustarunt aquas malas Calumniatoris et hydropici facti sunt veneno quod ab illo (infusum) potarunt."[2]

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[1] *Op. cit.*, vol. IV, p. 70.

The Arabic version calls dropsy استسقاء *'istịsqā*, i. e. ἀσϰίτης, and the "theoria" contains an interesting apocryphal story of Adam: "Et nos quoque aegroti et morbo laborantis similes sumus, quippe qui operibus nostris aegrotamus. Lapis autem in quo est medicina et sanatio hominis aegri similis est Domini Christi, qui daemoniacos sanavit, et leprosos purificavit et coecorum oculos aperuit et mortuos suscitavit. Et quemadmodum lapidem in sole suspendunt in tres horas, ad eundem Dominus Christus in cruce pependit per horas tres. Et quemadmodum e lapide aqua exit, ad eundem exiit e latere Domini Christi sanguis et aqua, donec perveniret in speluncam patris nostri Adami, eumque peccato suo sanavit et liberavit et vivere fecit, et nos vivere fecit cum illo in aeternum. Et e nobis exire fecit aquam malam, i. e. omnia peccata, et promisit nobis regnum suum coeleste, cujus nullus finis erit. Et quemadmodum lapis suscipit aquae redundantiam, ad eundem Dominus Christus portavit dolores nostros et morbos. Cui sit laus et potestas in saecula saeculorum."[1]

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[1] *Ibid.*, p. 70.

[2] J. P. N. Land, *Anecdota syriaca*, Lugduni Batavorum 1875, vol. IV, p. 84.

One Greek version calls the stone βατϱάχιος.[2] This gives us at once a clue to the whole story. We are dealing here with an Arabic version of a Coptic "dropsy stone," which itself is a philological speculation on ἀχάτης, either the Greek or the homonymous Egyptian word, as we shall soon see.

We have Arab. حبن *ḥaban* "to have the dropsy, to have a disease in the belly, whereby it becomes large and swollen, the dropsy." We have Ethiop. *qabam* "to have the dropsy," Bilin *qabā* "disease, dropsy," which are all variations of a Hamito-Semitic word meaning "to swell." We have Bilin *habbā* "anything swollen, wind," *habhab* "to blow up a bag," Saho *habab*, *habhab* "to blow up a bag," Arab. حب *habba* "a wind blew," etc. From this it follows that the ἅπαξ λεγόμενον Syr. *hawān* is due to a borrowing from an Arabic version where *ḥaban* was used. But the Arabic story itself is due to a Coptic speculation on ἀχάτης, which had entered into the pearl story.

In Egyptian medicine[3] we have *uχeṭu'*, *uχṭu'* "to suffer, be ill," *uχeṭī* "sick," *χat* "some belly trouble," *χet* "belly." Both are from Egyp. *χet* "bag." All these are represented in Cop. *hath* "fat, thick," *hēt* "stomach, belly, bag, heart, mind," *hthē* "heart, mind," *hthai* "fatness," *hot* "bag," *ḥat* "fat," *ḥthai* "fatness," *ḥot* "fat, bag, ἀσκός."

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[1] *Ibid.*, p. 172.
[2] J. B. Pitra, *Spicilegium solesmense*, Parisiis 1855, vol. III, p. 370.
[3] G. Ebers, *Papyros Ebers*, Leipzig 1875, vol. II.

From this it follows that Gr. ἀσκίτης "dropsy" is formed as a translation of an Egyptian word, where we have the same relation. It is also clear that the story of the "Indian stone" depends upon a Coptic philological speculation, in which the Indian stone *achates* is brought in connection with the dropsy, *ḥat*, *ḥet*, etc., for which it is philologically and, no doubt, gnostically, supposed to be a cure. That the story of the "Indian stone" reached the Greek and Latin *Physiologus* through an Arabic version follows from the name βατράχιος for it, since it is based on Arab. ام حبين *'umm-ḥubain* "a reptile of the size of a lizard or frog,"[1] "so called from حبن = largeness of its belly (dropsy)."[2] The author of the Greek *Physiologus* was acquainted with the Arabic etymology when he described the "dropsy stone."

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[1] Ad-Damīrī, *op. cit.*, vol. I, p. 664.
[2] *Ibid.*, p. 663.

XVI. THE PEARL IN PLINY, ETC.

Pliny writes: "In the same degree that people in our part of the world set a value upon the pearls of India—a subject on which we have already spoken on the appropriate occasion at sufficient length—do the people of India prize coral: it being the prevailing taste in each nation respectively that constitutes the value of things. Coral is produced in the Red Sea also, but of a more swarthy hue than ours. It is to be found also in the Persian Gulf, where it is known by the name of 'iace.' But the most highly-esteemed of all, is that produced in the vicinity of the islands called Stoechades, in the Gallic Gulf, and near the Aeolian Islands and the town of Drepana in the Sea of Sicily. Coral is to be found growing, too, at Graviscae, and off the coast of Neapolis in Campania: as also at Erythrae, where it is intensely red, but soft, and consequently little valued. Its form is that of a shrub, and its colour green: its berries are white and soft while under water, but the moment they are removed from it, they become hard and red, resembling the berries of cultivated cornel in size and appearance. They say that, while alive, if it is only touched by a person, it will immediately become as hard as stone; and hence it is that the greatest pains are taken to prevent this, by tearing it up from the bottom with nets, or else cutting it short with a sharp-edged instrument of iron: from which last circumstance it is generally supposed to have received its name of 'curalium.' The reddest coral and the most branchy is held in the highest esteem; but, at the same time, it must not be rough or hard like stone; nor yet, on the other hand, should it be full of holes or hollow. The berries of coral are no less esteemed by the men in India than are the pearls of that country by the females among us: their soothsayers, too, and diviners look upon coral as an amulet endowed with sacred properties, and a sure preservative against all dangers: hence it is that they equally value it as an ornament and as an object of devotion. Before it was known in what estimation coral was held by the people of India, the Gauls were in the habit of adorning their swords, shields, and helmets with it; but at the present day, owing to the value set upon it as an article of exportation, it has become so extremely rare, that it is seldom to be seen even in the regions that produce it. Branches of coral, hung at the neck of infants, are thought to act as a preservative against danger. Calcined, pulverized, and taken in water, coral gives relief to patients suffering from griping pains in the bowels, affections of the bladder, and urinary calculi. Similarly taken in wine, or, if there are symptoms of fever, in water, it acts as a soporific. It resists the action of fire a considerable time before it is calcined. There is also a statement made that if this medicament is frequently taken internally, the spleen will be gradually consumed. Powdered coral, too, is an excellent remedy for patients who bring up or spit blood. Calcined coral is used as an ingredient in compositions for the eyes, being productive of certain astringent and cooling effects: It makes flesh, also, in the cavities left by ulcers, and effaces scars upon the skin."[1]

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[1] "Quantum apud nos Indicis margaritis pretium est, de quis suo loco satis diximus, tantum apud Indos curalio; namque ista persuasione gentium constant. Gignitur et in Rubro quidem mari, sed nigrius, item in Persico—vocatur lace (iace)—laudatissimum in Gallico sinu circa Stoechadas insulas et in Siculo circa Aeolias ac Drepana. Nascitur et apud Graviscas et ante Neapolim Campaniae maximeque rubens, sed molle et ideo vilissimum Erythris. Forma est ei fruticis, colos viridis. Bacae eius candidae sub aqua ac molles, exemptae confestim durantur et rubescunt qua corna sativa specie atque magnitudine. Aiunt tactu protinus lapidescere, si vivat; itaque

The passage is badly interpolated from Arabic sources. Pliny says that a black coral is found in the Red Sea and Persian Gulf, and that it is called *iace* (*lace*). The statement is correct as regards the habitat of the black coral, but *iace* is the Arab. يسر *yusr* "black pearl, a plant, the black kernels of which are made into beads." Arab. يسر *yasr* means "easy, favorable," hence يسر *yusr* "facility," whence it would appear that the coral was so called because it was used for warding off harm, even as is mentioned by Pliny and especially by Solinus. But this may only be popular etymology and an afterthought. From the fact that we have also بسرة *busrah* "bead," unrelated to any Arabic stem (which produced Slav. *bisir* "pearl"), and Pers. *busad*, Arab. بسذ *busadz* "coral," it is most likely that بسد, بسر and بسره are all some kind of misreadings.[1] However this may be, *iace* in Pliny represents Arab. يسر *yasr*, which is of comparatively late origin.

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occupari evellique retibus aut acri ferramento praecidi, qua de causa curalium vocitatum interpretantur. Probatissimum quam maxime rubens et quam ramosissimum nec scabiosum aut lapideum aut rursus inane et concavum. Auctoritas bacarum eius non minus Indorum viris quoque pretiosa est quam feminis nostris uniones Indici. Harispices eorum vatesque inprimis religiosum id gestamen amoliendis periculis arbitrantur. Ita et decore et religione gaudent. Prius quam hoc notesceret, Galli gladios, scuta, galeas adornabant eo. Nunc tanta paenuria est vendibili merce, ut perquam raro cernatur in suo orbe. Surculi infantiae adalligati tutelam habere creduntur contraque torminum ac vesicae et calculorum mala in pulverem igni redacti potique cum aqua auxiliantur, simili modo ex vino poti aut, si febris sit, ex aqua somnum adferunt—ignibus diu repugnat—,sed eodem medicamine saepius poto tradunt lienem quoque absumi. Sanguinem reicientibus excreantibusve medetur cinis eorum; miscetur oculorum medicamentis, spissat enim ac refrigerat, ulcerum cava explet, cicatrices extenuat," XXXII. 21-24.

[1] For such blunders see B. Carra de Vaux, *L' Abrégé des Merveilles*, Paris 1898, in *Actes de la Société philologique*, vol. XXVI, *passim* in the notes, and L. Friedlaender, *Die Chadhirlegende und der Alexanderroman*, Leipzig, Berlin 1913, p. 294 ff.

Pliny says that the Indian soothsayers and diviners look upon coral as an amulet endowed with sacred properties, and a sure preservative against all dangers, hence it is that they equally value it as an ornament and as an object of devotion. We shall first assume that this correctly refers, as it should, to the coral. In this we are strengthened by Isidore, where we read: "*Corallius* gignitur in mari, forma ramosus, colore viridi sed maxime rubens. Bacae eius candidae sub aqua et molles; detractae confestim durantur et rubescunt, tactuque protinus lapidescunt. Itaque occupari evellique retibus solet, aut acri ferramento praecidi, qua de causa corallius vocitatus. Quantum autem apud nos margaritum Indicum pretiosum est, tantum apud Indos corallium. Hunc magi fulminibus resistere adfirmant, si creditur."[1] The relation of the last two sentences to Pliny's statement is obvious, even though we have here the specific reference to warding off danger from lightning. That the last sentence, at least, is an interpolation in the original Isidore, appears from the following juxtaposition: "*Chelonitis* oculus est Indicae testudinis, varius et purpureus. Hunc magi inpositum linguae futura pronuntiare finguntur. *Brontea* a capite testudinum; e tonitribus cadi putatur, et restinguere fulminis ictus. *Hyaenia* lapis in oculis hyaenae bestiae invenitur; qui si sub lingua hominis subditus fuerit, futura eum praecinere dicunt. Sed et *corallius* tempestati et grandini resistere fertur."[2] Here the last sentence should have preceded "hyaenia," since it has a meaning only as a continuation of the "brontea." Hence the reference to the coral was, no doubt, written in the margin, and from there wrongly found its way into the text after the "hyena stone," instead of before it.

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[1] XVI. 8. 1.
[2] XVI. 15. 23–25.

The coral being here correlated with the Indian practices, it also found its way into the story of the coral itself.

In Solinus we have a full account of the growth of the coral, after which we are told, as in Pliny, that many "gestamina," amulets, are made from it, since, "as Zoroaster says, this matter has certain salutary properties:" "Ligusticum mare frutices procreat, qui quantisper fuerint in aquarum profundis, fluxi sunt tactu prope carnulento: deinde ubi in supera tolluntur natalibus derogati saxis lapides fiunt: nec solum qualitas illis sed et color vertitur: nam puniceo protinus erubescunt. Ramuli sunt, quales arborum visimus, ad semipedem frequentius longi; rarum est pedaneos deprehendi. Excluduntur ex illis multa gestamina. Habet enim, ut Zoroastres ait, materia haec quandam potestatem, ac propterea quidquid inde sit, ducitur inter salutaria. *Curallium* alias dicunt: nam Metrodorus gorgiam nominat. Idem quod resistat typhonibus et fulminibus adfirmat."[1]

Berthelot[2] places the alchemist Zoroaster in the time of Zosimus, that is, in the III. century A. D. If this date is correct, then a great part of Pliny is a downright forgery, since this Zoroaster is quoted several times by him. The reference to the coral is taken out of "The Book of Zoroaster," which is preserved in the *Geoponica*,[3] where the title runs, «Περὶ φυσικῶν συμπαθειῶν καὶ ἀντιπαθειῶν. Ζωροάστρου.» Here we read: Ὁ κουράλιος λίθος κείμενος ἐν τῇ οἰκίᾳ πάντα φθόνον καὶ ἐπιβουλὴν ἐλαύνει· τὰ αὐτὰ δὲ ποιεῖ καὶ τὰ κάρφη τῆς ἐβένου, καὶ αἱ ῥίζαι τῆς ἀσπαλάθου, καὶ ἡ εὐώδης ἀναγαλλὶς βοτάνη, καὶ ἡ σκίλλα ξηραινομένη, καὶ ἐν τῷ προθύρῳ τῆς οἰκίας κειμένη.»[4] The juxtaposition of "coral" and "sprig of the ebony" in Zoroaster is not an accidental one, for in Arabic يسر *yusr*, as we have seen, means "coral" and "very black kernels of a plant, from which necklaces are made,—the more you use them the more do they shine." We can now assert that Arab. يسر *yusr*, etc., is a misread ابنس *abnus* "ebony," for it is ebony from which black beads were made, and which has the qualities ascribed by Pliny in part to the coral.

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[1] II. 41-43.
[2] *Collection des anciens alchimistes grecs*, Paris 1887, vol. I, p. 202.
[3] H. Beckh, *Geoponica*, Lipsiae 1895, p. 432 ff.
[4] *Ibid.*, XV. 1. 31, p. 436.

We find in Pliny and other authors genuine accounts of the ebony, but it is only in a late interpolation in Solinus that we get the story of the ebony which led to strange confusions in Pliny: "Sed ut piper sola India, ita et hebenum sola mittit; nec tamen universa, verum exigua sui parte silvas hoc genus gignit. Arbor est plerumque tenuis et frequentior vimine raro, in crassitudinem codicis extuberata, hiulco cortice et admodum reticulato dehiscentibus venis, adeo ut per ipsos sinus pars intima vix tenui libro contegatur. Lignum omne atque mediale eadem ferme et facie et nitore, qui est in lapide gagate. Indi reges ex eo sceptra sumunt et quascumque deorum imagines non nisi ex hebeno habent. Iidem ferunt materie ista liquorem noxium non contineri et quidquid maleficium fuerit, tactu eius averti. Hac gratia pocula ex hebeno habent. Ita nihil mirum, si peregre sit in pretio, quod etiam ipsi quibus provenit honorantur."[1] From this account we learn that the ebony was as brilliant as gagates, and that it had certain properties akin to coral, namely, of averting poisons. We also get the statement that ebony was exceedingly precious.

There is in Pliny the following passage: "*Exhebenum* Zoroastres speciosam et candidam tradit, qua aurifices aurum poliant."[2] No such mineral is mentioned in either Latin or Greek literature. At the same time it is not accident that Pliny mentions *exhebenus* from Zoroaster, who mentions ebony immediately after the coral, and that Solinus mentions the aetites, which immediately precedes the coral in Zoroaster, as being preferred by Zoroaster on account of its properties: "Hunc aëtiten Zoroastres praefert omnibus maximamque illi tribuit potestatem."[1] Neither in Pliny nor Solinus do we have the statements as given in the Greek Zoroaster, since they are, no doubt, due to the Syrian or Arabic expansion of the same. In one of these was some reference to ebony wood, ἐξ ἐβένου in the Greek, which on account of its hardness was used for polishing gold. We have also the statement in Servius, commenting on *Georgica* II. 116, that with age ebony turned into a stone. From these the forger who assumed the name of Pliny created an *exebenum.* It is certainly not a mere accident that in Pliny the chapter on coral is immediately followed by one on antipathies and sympathies, while in Zoroaster the coral, ebony, and aetites are all part of the chapter on antipathies and sympathies. From all this follows the late origin of that part of the coral in Pliny which has so far been discussed.

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[1] Mommsen, *op. cit.*, p. 221.

[2] XXXVII. 159; also Isidore, XVI. 10. 11.

The forger was misled by the Arabic word which means both "bead of ebony" and "coral" into stating that the coral was extremely precious, which it is not and never was. But when he states that in India the coral was as precious as the pearl in Rome, and attributes to the coral properties of averting lightning, which we find in the Vedic amulet attributed to the pearl, he was misled by another Arabic double, namely, مرجان *marǵān*, *murǵān*, which means both "coral" and

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[1] XXXVII. 15.

"pearl," and which has led many a translator into error.[1]

The sober Arabic writers, such as Idrīsī and Qazwīnī, gave correct accounts of the coral and its manner of fishing. According to Idrīsī[2] the coral is a tree which petrifies in the sea. It is fished with implements having numerous hempen nets at the end, which become entangled in the coral and bring it up in great abundance. According to Qazwīnī the coral was brought up by a cross which was weighted with a stone.[3] In the *Physiologus*, on account of the loose use of مرجان *marǵān*, *murǵān*, we get the whole transferred to the pearl. In the Latin versions the pearl is fished with a stone, *achates*. In the Ethiopic version the pearls are caught with nets. According to one version of the Syriac *Physiologus*[4] the position of the pearl is indicated by the stone. The pearl oyster itself is an animal which turns into a tree as soon as it contains the pearl, and the diver has to cut it away with a knife. In all of these cases we have distinctly a confusion of the pearl with the coral.

In Solinus we have no reference whatsoever to India, although in Isidore we have the identical statement as in Pliny. But Solinus says: "curallium alias dicunt: nam Metrodorus *gorgiam* nominat; idem quod resistat typhonibus et fulminibus adfirmat."[5] This is given in Pliny as: "*gorgonia* nihil aliud est quam curalium; nominis causa, quod in duritiam lapidis mutatur emollitum in mari; hanc fulminibus et typhoni resistere adfirmant."[1] *Gorgonia* is found nowhere else and is unquestionably due to a misreading of مرجان *murǵān* as غرجان *gurǵān*. It is certainly significant that the reference to the resistance to lightning occurs twice as an interpolation in Isidore, but the *gorgonia* is not mentioned. If Isidore, who quoted Pliny profusely, had found the *gorgonia* in Pliny or Solinus, he could not have failed to give it, since he gives the latter part of the sentence twice.

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[1] "Nous avons vu précédemment que le mot مرجان était pris dans le sens de 'parvae margaritae', ce qui a induit en erreur quelques traducteurs," Clément-Mullet, *op. cit.*, p. 201, in note.

[2] P. A. Jaubert, *Géographie d' Edrisi*, vol. I, in *Recueil de voyages et de mémoires, publié par la Société de Geographie*, vol. V, Paris 1836, p. 266 f.

[3] Clément-Mullet, *op. cit.*, p. 203.

[4] K. Ahrens, *Das Buch der Naturgegenstände*, Kiel 1892, p. 80 f.

[5] II. 43.

The following passages in Pliny contain the word *unio* "pearl."

IX. 106–124. "Principium ergo columenque omnium rerum pretii margaritae tenent. Indicus maxime has mittit oceanus inter illas beluas tales tantasque, quas diximus, per tot maria venientes, tam longo terrarum tarctu et tantis solis ardoribus. Atque Indis quoque in insulas petuntur et admodum paucas. Fertilissima est Taprobane et Stoidis, ut diximus in circuitu mundi, item Perimula, promunturium Indiae. Praecipue autem laudantur circa Arabiam in Persico sinu maris Rubri.

"Origo atque genitura conchae sunt, haut multum ostrearum conchis differentes. Has ubi genitalis anni stimularit hora, pandentes se quadam oscitatione impleri roscido conceptu tradunt, gravidas postea eniti, partumque concharum esse margaritas pro qualitate roris accepti. Si purus influxerit, candorem conspici; si vero turbidus, et fetum sordescere; eundem pallere caelo minante. Conceptum ex eo quippe constare, caelique iis maiorem societatem esse quam maris: inde nubilum trahi colorem aut pro claritate matutina serenum. Si tempestive satientur, grandescere et partus; si fulguret, conprimi conchas ac pro ieiunii modo minui; si vero etiam tonuerit, pavidas ac repente conpressas quae vocant physemata efficere, specie modo

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[1] XXXVII. 164.

inani inflata sine corpore; hos esse concharum abortus. Sani quidem partus multiplici constant cute, non inproprie callum ut existimari corporis possit. Itaque et purgantur a peritis. Miror ipso tantum eas caelo gaudere, sole rufescere candoremque perdere ut corpus humanum. Quare praecipuum custodiunt pelagiae, altius mersae quam ut penetrent radii. Flavescunt tamen et illae senecta rugisque torpescunt, nec nisi in iuventa constat ille qui quaeritur vigor. Crassescunt etiam in senecta conchisque adhaerescunt nec his evelli queunt nisi lima. Quibus una tantum est facies et ab ea rotunditas, aversis planities, ob id tympania nominantur. Cohaerentes videmus in conchis hac dote unguenta circumferentibus. Cetero in aqua mollis *unio*, exemptus protinus durescit.

"Concha ipsa, cum manum vidit, conprimit sese operitque opes suas, gnara propter illas se peti, manumque, si praeveniat, acie sua abscidat, nulla iustiore poena, et aliis munita suppliciis, quippe inter scopulos maior pars invenitur, in alto quoque comitantibus marinis canibus, nec tamen aures feminarum arcentur. Quidam tradunt sicut apibus, ita concharum examinibus singulas magnitudine et vetustate praecipuas esse veluti duces, mirae ad cavendum sollertiae. Has urinantium cura peti, illis captis facile ceteras palantes retibus includi, multo deinde obrutas sale in vasis fictilibus; rosa carne omni nucleos quosdam corporum, hoc est *uniones*, decidere in ima.

"Usu atteri non dubium est coloremque indiligentia mutare. Dos omnis in candore, magnitudine, orbe, levore, pondere, haut promptis rebus in tantum, ut nulli duo reperiantur indiscreti: unde nomen *unionum* Romanae scilicet inposuere deliciae, nam id apud Graecos non est, ne apud barbaros quidem, inventores rei eius, aliud quam *margaritae*. Et in candore ipso magna differentia: clarior in Rubro mari repertis, in

Indico specularium lapidum squamas adsimulant, alias magnitudine praecellentes. Summa laus coloris est exaluminatos vocari. Et procerioribus sua gratia est. Elenchos appellant fastigata longitudine alabastrorum figura in pleniorem orbem desinentes. Hos digitis suspendere et binos ac ternos auribus feminarum gloria est, subeuntque luxuriae eius nomina externa, exquisita perdito nepotatu, si quidem, cum id fecere, crotalia appellant, ceu sono quoque gaudeant et collisu ipso *margaritarum;* cupiuntque iam et pauperes, lictorem feminae in publico *unionem* esse dictitantes. Quin et pedibus, nec crepidarum tantum obstragulis, set totis socculis addunt. Neque enim gestare iam *margaritas*, nisi calcent ac per *uniones* etiam ambulent, satis est.

"In nostro mari reperiri solebant crebrius circa Bosporum Thracium, rufi ac parvi in conchis quas myas appellant. At in Acarnania quae vocatur pina gignit, quo apparet non uno conchae genere nasci. Namque et Iuba tradit Arabicis concham esse similem pectini insecto, hirsutam echinorum modo, ipsum *unionem* in carne grandini similem. Conchae non tales ad nos adferuntur. Nec in Acarnania autem laudati reperiuntur, enormes et feri colorisque marmorei. Meliores circa Actium, sed et hi parvi, et in Mauretaniae maritimis. Alexander polyhistor et Sudines senescere eos putant coloremque expirare.

"Firmum corpus esse manifestum est, quod nullo lapsu franguntur. Non autem semper in media carne reperiuntur, sed aliis atque aliis locis, vidimusque iam in extremis etiam marginibus velut e concha exeuntes et in quibusdam quaternos quinosque. Pondus ad hoc aevi semunciae pauci singulis scripulis excessere. In Britannia parvos atque decolores nasci certum est, quoniam Divus Iulius thoracem, quem Veneri Genetrici in templo eius dicavit, ex Britannicis margaritis factum voluerit intellegi.

"Lolliam Paulinam, quae fuit Gai principis matrona, ne serio quidem aut sollemni caerimoniarum aliquo apparatu, sed mediocrium etiam sponsalium cena, vidi smaragdis *margaritisque* opertam, alterno textu fulgentibus toto capite, crinibus [spira], auribus, collo [monilibus], digitis. Quae summa quadringentiens HS colligebat, ipsa confestim parata mancupationem tabulis probare. Nec dona prodigi principis fuerant, sed avitae opes, provinciarum scilicet spoliis partae. Hic est rapinarum exitus, hoc fuit quare M. Lollius infamatus regum muneribus in toto oriente interdicta amicitia a Gaio Caesare Augusti filio venenum biberet, ut neptis eius quadringentiens HS operta spectaretur ad lucernas! Computet nunc aliquis ex altera parte quantum Curius aut Fabricius in triumphis tulerint, imaginetur illorum fercula, ex altera parte Lolliam, unam imperii mulierculam, accubantem: non illos curru detractos quam in hoc vicisse malit? Nec haec summa luxuriae exempla sunt. Duo fuere maximi *uniones* per omne aevum; utrumque possedit Cleopatra, Aegypti reginarum novissima, per manus orientis regum sibi traditos. Haec, cum exquisitis cotidie Antonius saginaretur epulis, superbo simul ac procaci fastu, ut regina meretrix lautitiam eius omnem apparatumque obtrectans, quaerente eo, quid adstrui magnificentiae posset, respondit una se cena centiens HS absumpturam. Cupiebat discere Antonius, sed fieri posse non arbitrabatur. Ergo sponsionibus factis postero die, quo iudicium agebatur, magnificam alias canam, ne dies periret, sed cotidianam, Antonio apposuit inridenti computationemque expostulanti. At illa corollarium id esse et consumpturam eam cenam taxationem confirmans solamque se centiens HS cenaturam, inferri mensam secundam iussit. Ex praecepto ministri unum tantum vas ante eam posuere aceti, cuius asperitas visque in tabem *margaritas* resolvit.

Gerebat auribus cum maxime singulare illud et vere unicum naturae opus. Itaque expectante Antonio, quidnam esset actura, detractum alterum mersit ac liquefactum obsorbuit. Iniecit alteri manum L. Plancus, iudex sponsionis eius, eum quoque parante simili modo absumere, victumque Antonium pronuntiavit omine rato. Comitatur fama *unionis* eius parem, capta illa tantae quaestionis victrice regina, dissectum, ut esset in utrisque Veneris auribus Romae in Pantheo dimidia eorum cena. Non ferent hanc palmam spoliabunturque etiam luxuriae gloria. Prior id fecerat Romae in *unionibus* magnae taxationis Clodius, tragoedi Aesopi filius, relictus ab eo in amplis opibus heres, ne triumviratu suo nimis superbiat Antonius paene histrioni comparatus, et quidem nulla sponsione ad hoc producto (quo magis regium fiat), sed ut experiretur in gloriam palati, quidnam saperent *margaritae.* Atque ut mire placuere, ne solus hoc sciret, singulos *uniones* convivis quoque absorbendos dedit.

"Romae in promiscuum ac frequentem usum venisse Alexandria in dicionem redacta, primum autem coepisse circa Sullana tempora minutas et viles Fenestella tradit, manifesto errore, cum Aelius Stilo circa Iugurthinum bellum *unionum* nomen inponi cum maxime grandibus *margaritis* prodat.

"Et hoc tamen aeternae prope possessionis est; sequitur heredem, in mancipatum venit ut praedium aliquod: conchylia et purpuras omnis hora atterit, quibus eadem mater luxuria paria paene et *margaritis* pretia fecit."

XII. 2. "Quo magis ac magis admirari subit his a principiis caedi montes in marmora, vestes ad Seras peti, *unionem* in Rubri maris profunda, zmaragdum in ima tellure quaeri."

XXXIII. 40. "Discurrant catenae circa latera et in secreto *margaritarum* sacculi e collo dominarum auro

pendeant, ut in somno quoque *unionum* conscientia adsit."

XXXVII. 17. "Tolerabiliorem tamen causam fecit C. principis, qui super cetera muliebria soccos induebat e *margaritis*, aut Neronis principis, qui sceptra et personas et cubilia viatoria *unionibus* construebat."

XXXVII. 49. "*Uniones* capite circumferuntur, gemmae digitis."

Pliny says, "in aqua mollis *unio*, exemptus protinus durescit," which is found in Solinus as "in aqua mollis est *unio*, duratur exemptus." This is taken out of some Arabic description of the coral, *murǵān*, which became confused with the pearl: "The coral is a plant which, by the will of God, may He be exalted, grows in the sea. When it is removed and separated from it, it petrifies and grows red."[1] This confusion is already found in Arabic in the IX. century Arabic Voyage,[2] where the language is identical with Pliny's. When we find in Pliny that the *unio* is found in the Red Sea, we have here a confusion of the coral and the pearl, as before.

In IX. 109 Pliny says: "When old, too, the coat grows thick, and they adhere to the shell, from which they can only be separated with the assistance of a file. Those pearls which have one surface flat and the other spherical, opposite to the plane side, are for that reason called tympania, or tambour-pearls. I have seen pearls still adhering to the shell; for which reason the shells were used as boxes for unguents." The reference here is not to pearls, but to excrescences in the mother-of-pearl; and the sentence, "those pearls which have one surface flat and the other spherical, opposite to the plane side, are for that reason called tympania, or tambour-pearls," is wrongly interlarded, because it is the shell that is called "tambour," and this is used for unguents. We have already seen that the Arab. نقر *naqar* produced LLat. *nacara* "mother-of-pearl" and "drum." Here we have merely a retranslation into Greek. In the interpolated part of the *Digest* (XXXIV. 2. 32. 9) we find *tympanis margaritis*, which only shows that the *Digest*, as we have it, was written after the interpolations had been made in Pliny.

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[1] Clément-Mullet, *op. cit.*, p. 201 f.

[2] See p. 129.

"There is no doubt that pearls wear with use, and will change their colour, if neglected. All their merit consists in their whiteness, large size, roundness, polish, and weight; qualities which are not easily to be found united in the same; so much so, indeed, that no two pearls are ever found perfectly alike; and it was from this circumstance, no doubt, that our Roman luxury first gave them the name of 'unio,' or the unique gem: for a similar name is not given them by the Greeks; nor, indeed, among the barbarians by whom they are found are they called anything else but 'margaritae.' Even in the very whiteness of the pearl there is a great difference to be observed. Those are of a much clearer water that are found in the Red Sea, while the Indian pearl resembles in tint the scales of the mirror-stone, but exceeds all the others in size. The colour that is most highly prized of all, is that of those which are thence called alum-coloured pearls. Long pearls also have their peculiar value; those are called 'elenchi,' which are of a long tapering shape, resembling our alabaster boxes in form, and ending in a full bulb. Our ladies quite glory in having these suspended from their fingers, or two or three of them dangling from their ears. For the purpose of ministering to these luxurious tastes, there are various names and wearisome refinements which have been devised by profuseness and prodigality; for after inventing these earrings, they have given them the name of 'crotalia,' or castanet pendants, as though quite delighted even with the rattling of the pearls as they knock against each other; and now, at the present day, the poorer classes are even affecting them, as people are in the habit of saying, that 'a pearl worn by a woman in public, is as good as a lictor walking before her.' Nay, even more than this, they put them on their feet, and that, not only on the laces of their sandals, but all over the shoes; it is not enough to wear pearls, but they must tread upon them, and walk with them under foot as well."[1]

Here nearly everything is wrong and due to a misunderstanding of the Arabic sources. The ancients did not know our alum. What the Romans called *alumen* was an iron sulphate or aluminum sulphate. When we are told that the color that was most highly prized in the pearl was the "exaluminatum," we have here a compound error, due to a misunderstanding of certain alchemists' terms. The Arabic term for "vitriol" is *šabb*, and the best, which was white and glistening, was obtained from Yemen, hence its name, شب يماني *šabbun yamānī*. In the mediaeval alchemy this was known as *alumen jacmini, gemini*.[2] There was also a salt, *sal gemme*, which was confused with this alumen. At the same time it was called *dara*,[3] that is, Arab. درة *ḍurrah* "large pearl;" hence the confusion in Pliny that the best pearl was called "exaluminatum."

Elenchi is found in the interpolated part of the *Digest*, XXXIV. 2. 32. 8: "item cum inaures, in quibus duae margaritae *elenchi* et smaragdi duo, legasset et postea *elenchos* eisdem detraxisset et quaereretur, an nihilo minus detractis *elenchis* inaures deberentur: respondit deberi, si maneant inaures, quamuis margarita eis detracta sint." It is clear from this passage that "soluta," as connected with *unio* before, was correctly interpreted by me, since here we have another equivalent, "detractus," which is precisely that of Arab. قلع *qala'a*. At the same time it is made clear that "elenchus" is a pearl and is in some way connected with an earring. *Elenchus* is also found in Juvenal VI. 459, "auribus extentis magnos commisit *elenchos*," to which the X. century *Glossae Iuvenalianae* say "*elenchos* gemmas non longiores."[1] But Juvenal, in whose work many interpolations have been suspected, is particularly bad in the half dozen lines following this word: VI. 460 has been shown to be a forgery, and the next five lines made no sense whatsoever as they stood and so had to be transposed before admitting of any interpretations. This disarrangement was evidently caused by slipping in the line about the *elenchi*.

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[1] IX. 112–114.

[2] Berthelot, *La chimie au moyen âge*, Paris 1893, vol. I, pp. 211, 212, 213, 217, etc.

[3] *Ibid.*, p. 217.

Elenchi goes back to a Coptic source. We have Copt. *holk* "manner of plaiting the hair, ring," *alak* "circle, ring," which is already recorded in Demotic *hlq* in the II. century B. C.[2] This Coptic word entered the Arabic as حلقة *ḥalqah* "ring," حلق *ḥalq* "a narrow passage between two mountains, garganta de monte (in Alcalá), earring." In the sense of "narrow passage," however, the Arab. حلق *ḥalq* is not of Coptic, but of Greek origin, for it originally means "the place of slaughter in an animal," hence "the fauces, the place of the غلصمة *galṣamah* (γλώττωμα), epiglottis," and we have also حلقمة *ḥalqamah* "he slaughtered him,"

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[1] Goetz, vol. V, p. 656.

[2] F. Ll. Griffith, *Catalogue of the Demotic Papyri in the John Rylands Library*, Manchester 1909, vol. II, nos. XX and XXII.

حلقوم *ḥalqūm* "the windpipe, passage of breath, the confused parts of a country, straits." All these are from Gr. ἕλκω "to make an incision," ἕλκος, ἕλκωμα "wound, incision." It is only through a confusion of the two حلق *ḥalq* words that there could have developed "elongated earring," which we find represented in LLat. *elenchus*. This, then, places the *Digest* far beyond the year 711.

When we are told in Pliny that the *elenchi* dangled by twos or threes from the women's ears, and that they were called *crotalia*, because they rattled against each other, we once more get a Coptic-Arabic name for the earrings. In the IX. century Arabic Voyages mentioned above, we read, "The Kings of India are in the habit of wearing earrings (الاقراط *'al-'aqrāt*) of precious stones set in gold."[1] Arab. قرط *qurt*, pl. اقراط *'aqrāt*, means "thing that is suspended to the lobe of the ear, such as a silver bead fashioned as a pearl, or pendant of gold." This is found in Syriac as ܩܘܪܨܐ *kūrçå* "earring," and this brings us back to Arab. خرص *ḥurṣ* "a ring of gold, earring with one bead of the kind called قرط *qurt*." This, again, brings us to Copt. *kros*, *korks* "ring," from Egyp. *kerker* ' circle, cylinder." When the forger made *crotalia* out of Arab. *'aqrāt* and said that the earrings were so named because the pearls rattled against each other, he said what was impossible, since pearls rapidly deteriorate when they strike against an object.

We find *crotalia* in a passage in Petronius: "inde duo *crotalia* protulit et Fortunatae in vicem consideranda dedit et 'domini' inquit 'mei beneficio nemo habet meliora.'"[1] This alone would stamp the *Cena Trimalchionis* as the work of the VIII. or IX. century. But we have at least one independent proof that it was not written before the VIII. century. The *Cena Trimalchionis* is found only in a MS. of the XV. century, and was first published in the XVII. century. The authorship and probable date rest on purely circumstantial evidence. The language of the work bears a striking resemblance to that of Vergil Maro the Grammarian, although it is in no way identical with it. There is at least one Arabic word in the *Cena*, and this I shall discuss here.

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[1] Reinaud, *op. cit.*, vol. I, p. 151.

In the cookbook of Apicius Caelius, or, more correctly, ascribed to Apicius Caelius, which cannot be of an earlier date than the IV. century, but has come down to us in a MS. of the X. century, there are the following passages: "patina ex lagitis et cerebellis: friges ova dua, cerebella elixas et enervas, *cizeria* (*cizema*, *cirema*) pullorum coquis;"[2] "*gigeria* pullorum, aucellas, isicia coques ex iure;"[3] "iscinera, *gizeria* (*ginzeria*, *gyzeria*, *zizeria*) pullorum in caccabum mittis."[4] It would seem that in these words we had the Lat. *viscera*, which had given way to "interanea" and "vitalia" in the popular language, and so was taken in France or Spain for a foreign word, and, as was frequently the case with initial *v* or *w*, was written instead with *g*, producing *gizera* for *viscera*. What the author meant is clear: not the viscera, but the gizzard and liver of the chickens were to be used, since it is unlikely that then, any more than now, the guts of the chickens were ever cooked. This change of writing could not possibly have happened before the V. century, in all probability much later.

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[1] *Cena Trimalchionis*, 67.

[2] Chr. Th. Schuch, *Apici Caeli De re coquinaria libri decem*, Heidelbergae 1874, IV. 141, p. 80.

[3] *Ibid.*, IV. 181, p. 97.

[4] *Ibid.*, V. 200, p. 108.

In the VIII. century, when the vocabularies were formed, this "*gizeria* pullorum" of Caelius caused trouble enough. Paulus, in his edition of Festus, entered: "*gizeria* ex multis obsoniis decerpta," "found in many food preparations," and thus avoided giving any explanation which would compromise him. The interpolator of Nonius mistook "Caelius" for "Lucilius" and wrote: "*gigeria*, intestina gallinarum conhisetita cocta. Lucilius lib. VIII (9): *gizerini* sunt sive adeo hepatia" (p. 119). Having found *gizeria*, *gigeria* invariably connected with "pullorum" in Caelius, the interpolator quite correctly wrote "intestina gallinarum," and what follows should be corrected to "cum isicia cocta," as we actually find in the cookbook. His "*gizerini* sunt sive adeo hepatia" is merely another gloss, picked out from a vocabulary, and should be "*gizeria* intestina sive adeo hepatia."

The last word is found in Petronius: "hepatia in catillis," only a few lines below *gizeria*, which occurs in the following combination: "habuimus tamen in primo porcum botulo coronatum et circa saviunculum et *gizeria* optime facta" (66). The combination "intestina sive adeo hepatia" follows from the Graeco-Latin gloss "κοιληπαταορνιθος *gequaria*,"[1] where the Greek stands for «κοιλία, ἥπατα ὄρνιθος» "chickens' gizzard and liver," which is correct. *Gizeria* got only into French, originally as a book word, as the forms of the word show. We have OFr. *ginsier*, *guisier*, *juisier*, leading to Fr. *gésier*, Eng. *gizzard*. In OFrench *guisier* means both "gizzard" and "liver." Another Latin-Greek gloss wrote "*gileriis* gallinarum τωνακρῶτων· ορνιθων,"[2] corrected much later to «τὰ ἔντερα τῶν ὀρνίθων.» *Gileriis* for *giseriis* shows that we are dealing here with a book word, since the palaeographic confusion of *s* and *l* is very common. The *Glossae Bernenses* could not make out the meaning of the previous gloss and wrote foolishly "akraton *geseria*,"[1] which is also found in the *Glossae Salomonis*.[2]

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[1] Goetz, vol. II, p. 351.

[2] *Ibid.*, p. 33.

Wherever we find the word, it is invariably connected with the chicken, because it was so originally connected in Apicius Caelius. In the languages which have not borrowed the strange word *gizeria* there does not exist a special word for the stomach of a bird, except in Arabic.

There is a Coptic root *kons*, *kōns* "to slaughter, cut the throat," which seems to lie at the foundation of Arab. قنص *qanaṣ* "what is taken, captured, caught, hunted, chased." By the side of Copt. *knos* "putrefaction," which apparently is identical with the first, we have also *χōns* "the putrified thing smelled badly." Similarly we have Arab. حنش *ḥanaš* "any bird that is hunted," حنش *ḥanaša* "he hunted." The uncertainty of the first and last letter at once indicate a borrowing. Now we have Arab. قانصة *qāniṣah* "intestines, bowels of a bird, triple stomach, gizzard," all of which develop from the Copt. *knos* "putrefaction." But in Arabic it has acquired the specific meaning of "the parts of the bird which are not the cadaver," that is, "giblets," for we have قانصة *qāniṣah*, قونصة *qauniṣah*, recorded in Alcalá as "molleja en las aves, gizzard" and "obispillo del ave, the rump of the bird."

In the Germanic languages the word entered but sparingly. We have Goth. *hunþs* "captivity, chase," *frahinþan* "to capture." AS. *hentan* "to pursue," *gehentan* "to take, seize," *hunt* "hunting," do not seem to be recorded before the X. century. They certainly are not so recorded in the early vocabularies. But we have in the Kentish glosses *hūđe* "praedam," and OHG. *herihunta*, *herihunda* "praeda" only twice,[1] and these are apparently borrowed from the Gothic. Otherwise there is no trace of the word in the other Germanic languages, and this absence from them, together with the irregular correspondence of Goth. *þ* and AS. *t* and *đ* and the peculiar treatment of *n* in ASaxon, marks these words as borrowings. They must have arisen from some Frankish vocabularies where a form something like *gunz* existed. Indeed, we have already met with LLat. *ginzeria*, OFr. *ginsier* "gizzard, liver," as in Arab. قانصة *qāniṣah*. But we have also a whole series of French words, in which the form *ginzeria* was read as *giuzeria*, *givceria*, producing LLat. *gibicere* "to hunt (birds)," hence OFr. *gibecier*, *gibesser*, *gebecier* "to hunt," hence *gibeciere* "hunting bag," *gibier*, *jebier*, *gibiez*, etc., "the hunt, more particularly, bird hunting," *gibelet* "some preparation from the bird," hence Eng. *giblet*.

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[1] *Ibid.*, vol. III, p. 488.

[2] Steinmeyer and Sievers, *op. cit.*, vol. IV, p. 179, note.

If we now turn back to the Latin-Greek glossary, we find that "*gileriis* τωνακρῶτων· ὀρνιθων" should have read "*giseriis* τῶν ἄκρων τῶν ὀρνίθων," that is, *ginseria* was the extremities, legs, wings, neck, rump, including also the gizzard, liver and heart, of the chicken; and thus *gizeria* of Petronius and Apicius Caelius turns out to be what it should have been, the giblets, which even now are prepared as an especial delicacy in many countries. This places Petronius' *Cena* incontestably in the VIII. or IX. century.[2]

In Pliny the word *dos* occurs twice in connection with the pearl: "*dos* omnis in candore, magnitudine," etc.,[1] and "cohaerentes videmus in conchis hac *dote* unguenta circumferentibus."[2] In the second case "hac dote" is forced, unless it means "by this gift," which, even so, does not make it less forced. In the first case *dos* is translated by "all its merit," which is not any less objectionable. As a matter of fact, the forger had in mind Pseudo-Hilary's *dotes* of the pearl, namely that whoever puts on "this" pearl, that is, Christ, "does not grow ill, or old, or die. It has nothing in itself which harms the body, and to him who uses it nothing befalls which brings death, or advances age, or interferes with health."[3] But this is not the only reason why the forger used *dos* in this connection. The "precious pearl" is in Arabic درة يتيمة *ḍurrah yaṭīmah*, and Arab. درة *ḍurrah* at once suggested the Syr. ܕܽܘܪܳܐ *dūra* δωρεά "dower," which forms the subject of so many Graeco-Syrian laws. The "pearl" was naturally considered as the precious dower for man.

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[1] *Ibid.*, vol. I, p. 287.

[2] There are a number of other Arabic words in the *Cena:* "*tangomenas* facere, to go on a spree" is unquestionably Arab. *ṭanāḍamūn* "to go on a spree;" "*mufrius*, non magister" should be corrected to "*muftius*, non magister," from Arab. *muftī* "teacher of law;" "*bacalusiae*, sweetmeats" is from Arab. *baqal* "vegetables."

This found its way as a curious interpolation into Isidore: "Donatio est cuiuslibet rei transactio. Dictam autem dicunt donationem quasi doni actionem, et dotem quasi *do item.* Praecedente enim in nuptiis donatione, dos sequitur. Nam antiquus nuptiarum erat ritus quo se maritus et uxor invicem emebant, ne videretur uxor ancilla, sicut habemus in iure. Inde est quod praecedente donatione viri sequitur dos uxoris."[4] The original Isidore could only have had "dicta autem est donatio quasi doni actio," after which followed "donatio usufructuaria ideo dicitur," etc. But the interpolator wanted to bring in the *ḍurrah yaṭīmah*, that is, the *dos item*, and this he could only do by etymologizing on the accusative case of *dos*; so he changed the whole into the accusative and produced the impossible "dictam autem dicunt donationem," although for pages back and afterwards we have only etymologies on the nominative case.

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[1] IX. 112.

[2] IX. 109.

[3] Migne, *P. L.*, vol. X, col. 550. See p. 153.

[4] V. 24. 25, 26.

That the interpolator got his *do item* from an Arabic source is shown by the mixture of the Arabic conception of the *donatio* by the groom, which is followed by the European conception of the *dos* of the bride. There is no provision in either Roman or Germanic law for a "donatio ante nuptias," in order to make the marriage valid, whereas in Moslem law a marriage is not valid until the groom has paid the *mahr* to the bride's *walī*,[1] and this was, indeed, a continuation of the pre-Moslemitic marriage by purchase. We shall later see to what tremendous consequences this *do item* led in the so-called Germanic laws.

Solinus says that *uniones* were introduced in the time of Sulla, "Sullanis primum temporibus Romam inlati sunt *uniones*,"[2] and gives the same explanation as to the origin of the name, "numquam duo simul reperiuntur, inde *unionibus* nomen datum."[3] But Pliny specifically quotes Aelius Stilo as an authority for the origin of the word or thing during the Jugurthine war, meaning by it that the pearl had been in use much longer; since according to Aelius Stilo the *uniones*, not the small pearls, were introduced about 111 B. C., whereas at that time Sulla was but 27 years old and hardly known. If so, it is extremely strange that Solinus, who is supposed to have quoted Pliny, should not have told the same story. There are some spurious quotations from Aelius Stilo[4] and this one in Pliny is obviously impossible.

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[1] Th. W. Juynboll, *Handbuch des Islamischen Gesetzes*, Leiden, Leipzig 1910, p. 209 ff.

[2] LIII. 30.

[3] LIII. 27.

[4] F. Mentz, *De Lucio Aelio Stilone*, in *Commentationes philologicae Ienenses*, vol. IV, p. 35 ff.

XVII. *UNIONES* IN MARTIAL.

Uniones are twice mentioned in Martial, and it will now be shown that certain poems of Martial, like Petronius' *Cena*, are of no earlier date than the VIII. century.

Bardocucullus occurs in Martial in the following two places: "Sic interpositus villo contaminat uncto | Urbica Lingonicus Tyrianthina bardocucullus," I. 53. 5; "Gallia Santonico vestit te bardocucullo. | Cercopithecorum paenula nuper erat," XIV. 128. The latter is obviously a borrowing from Juvenal's "Tempora Santonico velas adoperta cucullo."[1] It is not likely that the writer misread *-perta cucullo* as one word, though this may have helped in associating *barda* with "cucullus." He had in mind the Arab. بردة *burḍah* "a kind of garment which is wrapt around the body, an oblong piece of thick woolen cloth, generally brown or of a dark or ashy dust-color, and either plain, or having stripes so narrow and near together as to appear at a little distance of one color, used both to envelop the person by day and as a night-covering." The Augustan History, which for many other reasons will be shown to be a VIII. or IX. century product, has "*bardocucullum* unum."[2] But we also have "cuculli *Bardaici*,"[3] where the word is brought in harmony with Juvenal's "calceus *Bardaicus*,"[4] whatever this may have been.

Bascauda. "Barbara de pictis veni *bascauda* Britannis, | Sed me iam mavolt dicere Roma suam."[5] The word is found in Juvenal, "adde et *bascaudas* (*bascaldas*, *bastaudas*, *bascaulas*, *pascaudrias*),"[1] to which the scholia reads "*mascaudas* uasa ubi calices lauantur." Of Juvenal's XII. satire Friedlaender says: "eine der schwächsten Arbeiten Juvenals." The least one can say of *bascauda* in Juvenal is that it is an interpolation. Martial says that the *bascauda* came from the tattooed Britons, because he found the word in an ASaxon vocabulary. We have in the *Epinal* and *Erfurt Glossaries* "*uescada* mundleu," and in the *Corpus Glossary* "mundleu" is the translation of both *uescada* and "conca." Thus it is certain that a laver is meant. This is also brought out in the corrupt glosses, "*bascuudas* concas aereas," *Lib. gloss.*,[2] "*bascaudas* concas hereas," *Glossae AA.*,[3] "*barcanda* conca aerea," *Gloss. Scal.*,[4] "*bascaudas* concas ereas," *Gloss. Cod. Vat. 3321*,[5] but the important *Sang. 912* has "*vascaudes* concas ereas."[6] Thus it appears that the oldest, VIII. century form is *vescada* or *vascauda*, and through the Spanish betacism we get "*bascauda* طست," that is, "washbasin" in the Latin-Arabic glosses.[7]

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[1] VIII. 145.

[2] *Claudius*, XVII.

[3] *Pertinax*, VIII.

[4] XVI. 13–14.

[5] Martial, XIV. 99.

This is the Arab. فسقية *fasqiyyaṭ*, *fisqiyyaṭ* from Lat. "piscina," "basin in which the religious ablution is performed, a basin with a jet of water in it." The exceedingly strict observances of cleanliness enjoined by the Moslem religion, brought into use the lavers, which spread over Europe with the Arabic invasion. But the Arabs got the idea from the Greeks, who changed the Latin word *piscina* to φισκίνα, βισκίνα;[8]

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[1] XII. 46.

[2] Goetz, vol. V, p. 170.

[3] *Ibid.*, p. 442.

[4] *Ibid.*, p. 592.

[5] *Ibid.*, vol. IV, p. 24.

[6] *Ibid.*, p. 294.

[7] C. F. Seybold, *op. cit.*, p. 42.

[8] Ducange, sub *φισκίνα* "fountain, basin."

but it never assumed the meaning of laver in Greek. Ital. *vasca* may still represent Gr. βισκίνα, through a pronunciation βασκίνα, of which it is, as it were, an augmentative; but it is far more likely already the Arab. *fisqiyyaṭ*, of which, to judge from the Gr. βισκίνα, there must also have been a form *wisqiyyaṭ* or *wasqiyyaṭ*. It is in the south of Italy that *vasca* is best preserved: Sicil. *vasca* "basin of a fountain," of which we have the diminutive *vaschetta*, Neap. *vasca* "basin," and here we also have *vasillo* and *vacile* "laver." But *vasca* "basin of the fountain" is fairly universal throughout Italy. It is only the *vac*, *vas* forms, the latter because of its association with Lat. *vas*, that have spread in the Romance countries in the sense of "basin, laver," such as Port. *bacia*, Span. *bacin*, Fr. *bassin*, etc.

In the Germanic languages this *vasca*, or, rather, the LLat. *vascauda*, *vescada* very slowly assumed citizenship in ASaxon, where *waescern* "lautorium" is found in Alfric's vocabulary, and *waescan*, *waxan*, *waxsan* occur only sporadically. In OHGerman ultimately *wascan* completely obliterated the older word, while in Gothic only *þvahan* is found for "to wash."

It is, therefore, clear that we are dealing here with the evolution of the Arabic "laver" words, and that *bascauda* of Martial is a late VIII. century word, which was unknown before the arrival of the Arabs.

Covinnus. "O iucunda, *covinne*, solitudo, | Carruca magis essedoque gratum | Facundi mihi munus Aeliani":[1] What a *covinnus* is, is made clear from various authors. Mela says: "dimicant (Britanni) non equitatu modo aut pedite, verum et bigis et curribus, Gallice armati: *covinnos* vocant, quorum falcatis axibus utuntur."[2] In Lucan's *Pharsalia* we read:" "Et docilis rector rostrati Belga *covinni* | Arvernique ausi Latio se fingere fratres | Sanguine ab Iliaco populi,"[1] to which the scholiast says: "*Quovenna* genus vehiculi, cuius usum Galli primum invenerunt." Paulus Festus has it: "*benna* lingua Gallica genus vehiculi appellatur, unde vocantur *conbennones* in eadem *benna* sedentes."

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[1] Martial, XII. 24. 1–3.

[2] III. 6.

All these passages are due to an unfortunate statement in Pseudo-Berosus:[2] "Comerus more Scythico unde venerat docuit suos Italos urbem curribus componere. Et idcirco Veii appellati sunt vocabulo Sago, qui Veias plaustrum appellant, et urbem ex his compositam si parva sit Veitulam, si magna Vlurdum, si metropolis Cy Ocholam ad haec quoque tempora Scythae plaustris et curru pro domibus utuntur. Et sub solario quidem stabulum, supra vero habent officinas domus. Concludit et loca a se cognominata Tyras, postquam Tyrum fundavit, cum principibus coloniarum littora maris tenuit, fundavitque Thraces Archadius Archadiam, Emathius Emathiam tenuit. Anno .xlv. huius Beli Ianus pater posuit colonias in Arabia Foelice, et a suo nomine unas vocavit Noam, et a cognomine Ianineas. Qui vero ex posteritate Comeri erant Galli ab avito cognomine illos appellavit Gallos."[3] Pseudo-Berosus made Comerus the founder of the Gauls and located him in Italy, where he let him found Veii and, in Scythian manner, build it of chariots; hence they call a wagon *Veias*. Of course, Pseudo-Berosus had in mind Lat. *vehiculus*, and, most likely, he wrote *Vehi* and *Vehias*. The Scythians were especially known as the *Hamaxobii*,[4] and Pseudo-Berosus' statement is correct as far as the Scythians are concerned. But the glossators were misled by Pseudo-

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[1] I. 426 ff.

[2] See my *Contributions*, vol. III, p. 174 ff.

[3] J. Annius, *Antiquitatum variarum volumina XVII*, 1512, lib. XV, fol. CXXI.

[4] See Herodotus, IV. 46, and the note to it in Creuzer and Baehr's edition.

Berosus, and, misreading *vehias* as *vennas*, assumed it to be a Gallic word, whence the first part of Paulus' note. But the first part in Pseudo-Berosus, "et *idcirco Veii* appellati sunt vocabulo Sago," was understood by Paulus to refer to "Italos," that is, the Gauls, and reading "idcir(co) *covenni* appellati sunt, qui *vennas* plaustrum appellant," he called those who traveled in a *venna* or *benna* the *conbennones*. From this horrible confusion of a bit of forgery arose the *covinnus* "a Gallic chariot" and *covinnarius* "a charioteer." The confusion of *vehia* and *venna*, more especially the word *convenna* as understood by Paulus, was due chiefly to the use of *convena* by Pseudo-Berosus in connection with the Italian Gauls.[1]

But the case is far worse still. In Britain the ASaxon glossators knew (!) that "more scythico" was derived from AS. *siđe*, with which "falx" is glossed in the *Corpus Glossary*, or *sigde*, as it is found in the *Epinal Glossary*,—presto! The Britons employed scythed chariots in warfare. Scythed chariots are frequently mentioned in the East, but there is not a particle of evidence that there had ever been any in Gaul or Britain. If we now turn to the reference to scythed chariots in Britain, the passages all turn out to be interpolations or forgeries.

In Tacitus' *Agricola* occur these two passages: "Media campi *covinnarius* eques strepitu ac discursu complebat,"[2] and "interim equitum turmae, fugere *covinnarii*, peditum se proelio miscuere."[3] In the first, *covinnarius* is distinctly a gloss to "eques;" if not, an *et* has to be supplied, and this has been done by many editors, since a "*covinnarius* eques" is mere nonsense, the horses not having been ridden by the charioteer.

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[1] See my *Contributions*, vol. III, p. 190.
[2] XXXV. 3.
[3] XXXVI. 3.

In the second case, "fugere *covinnarii*" is obviously interpolated, for no chariots were present; hence at least one editor has bracketed it as a glossarial note. Other editors try to read "interim equitum turmae fugere, *covinnarii* peditum se proelio miscuere," which is bad, since no *covinnarii* are mentioned before.

Just such an interpolation of two lines is found in Silius Italicus' *Punica*, where, without rhyme or reason, the hand to hand fight of the Romans is compared with the scythed chariot charge of Thule: "Caerulus haud aliter, cum dimicat, incola Thyles | Agmina falcigero circumuenit arta *couinno*."[1] With the omission of these two lines the story gains in unity. In Lucan's *Pharsalia* the line containing the word *covinni* follows two lines which have already been proscribed, and ten lines further down another five lines have been long declared spurious. Indeed, the whole intervening part is a forgery, since it contains references to bards and Druids.[2] Mela has similarly been declared interpolated and need not even be discussed. Nor need we turn to the vocabularies, where *conuinna*, *couinnus*, κοιϐινος are given with the meaning "genus vehiculi."

Flodoardus writes: "haec omnia vehiculo, quod vulgo *benna* dicitur, imposuit."[3] This shows that in the X. century the *benna* was identified with a wicker cart, quite a deterioration from the dreaded scythed chariots of old. Hence we get Fr. *banne* "cart," which is found in a variety of forms in the dialects. In Italy *benna* is a wicker basket used in transporting goods over the mountains. OFr. *banastre*, *bennastre*, etc., "osier basket, carriage shade," is found in Span. *banasta* "basket," and it is most likely that LLat. *venna* "wicker weir for catching fish" and AS. *binn* "bin," as well as Welsh *benn* "wagon," *men*, *menn*, Bret. *mann* "wicker basket," etc.,[1] are all derived from the assumed Gallic *benna*, that is, from Pseudo-Berosus' "*veias* plaustrum appellant."

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[1] XVII. 416, 417.

[2] This will be brought out in Mr. Phillips Barry's work.

[3] *Historia Remensis ecclesiae*, Reims 1854, vol. I, p. 154 (I. 20).

No doubt, more such words can be discovered in Martial. Of his *urus* and *bubalus* I spoke elsewhere. This much is certain,—if there ever was a poet Martial who wrote in the day of Domitian, the poems under discussion are VIII. century forgeries. Incidentally, this forgery about the scythed chariots of the Britons adds another proof to the statement that Jordanes' *Getica* is a forgery. Here we read "(Brittani) non tantum equitatu vel pedite, verum etiam bigis curribusque falcatis, quos more vulgare essedas vocant."[2] Jordanes not only quoted the previous forgery, but even succeeded in adding a blunder by calling the scythed chariot an "esseda."

Uniones occurs twice in Martial.[3] From what we have already found in him in the way of words foreign to any century previous to the VIII., we conclude that these poems are equally spurious. *Uniones* occurs in the Augustan History, but this work has long been suspected. It occurs in Seneca: "Video *uniones* non singulos singulis auribus conparatos; iam enim exercitatae aures oneri ferundo sunt; iunguntur inter se et insuper alii binis superponuntur; non satis muliebris insania viros superiecerat, nisi bina ac terna patrimonia auribus singulis pependissent. Video sericas vestes, si vestes vocandae sunt, in quibus nihil est, quo defendi aut corpus aut denique pudor possit, quibus sumptis parum liquido nudam se non esse iurabit; hae ingenti summa ab ignotis etiam ad commercium gentibus accersuntur, ut matronae nostrae

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[1] See Holder, *Alt-celtischer Sprachschatz*, Leipzig 1891-, sub *benna*.
[2] II (15).
[3] VIII. 81 and XII. 49.

ne adulteris quidem plus sui in cubiculo, quam in publico ostendant."[1] Elsewhere in Seneca we find only *margarita.*[2] Especially interesting is the *De remediis fortuitorum liber*, whether it is Seneca's genuine work or not, because here we find repeated the statement that the women wear two fortunes in each ear; but the word used with it is *margarita*, which makes it certain that in *De beneficiis* this word was originally used, and not *uniones:* "Duc bene institutam nec maternis inquinatam vitiis, non cuius auriculis utrimque patrimonia bina dependeant, non quam *margaritae* suffocent, non cui minus sit in dote quam in veste, non quam in patente sella circumlatam per urbem populus ab omni parte aeque quam maritus inspexerit, cuius sarcinis domus non sit angusta."[3] The whole is a paraphrase of the passage in *De beneficiis.*

We also have *uniones* in Ammianus, who has already been shown to be a forgery.[4] "Restat ut super ortu lapidis huius, pauca succinctius explicentur. Apud Indos et Persas, *margaritae* repperiuntur in testis marinis robustis et candidis, permixtione roris anni tempore praestituto, conceptae. Cupientes enim uelut coitum quendam, humores ex lunari aspergine capiunt, densius oscitando. Exindeque grauidulae, edunt minutas binas aut ternas, uel *uniones*, ideo sic appellatas, quod euisceratae conchulae singulas aliquotiens pariunt, sed maiores. Idque indicium est aetheria potius deriuatione, quam saginis pelagi hos oriri fetus et uesci, quod guttae matutini roris isdem infusae, claros efficiunt lapillos et teretes, uespertini uero flexuosos contra et rutilos, et maculosos interdum. Minima autem uel magna pro qualitate haustuum figurantur, casibus uariatis. Conclusae uero saepissime metu fulgurum inanescunt, aut debilia pariunt, aut certe uitiis diffluunt abortiuis. Capturas autem difficiles et periculosas, et amplitudines pretiorum illa efficit ratio, quod frequentari sueta litora propter piscantium insidias declinantes, ut quidam coniciunt, circa deuios scopulos, et marinorum canum receptacula delitiscunt. Quod genus gemmae etiam in Brittanici secessibus maris gigni legique, licet dignitate dispari non ignoramus."[1] The whole is obviously post-Arabic, since we have here the story of the origin of the pearl from the morning dew.

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[1] *De beneficiis,* VII. 9. 4, 5.
[2] *Dialogi,* XI. 16. 3, *De beneficiis,* II. 12. 1.
[3] XVI. 7.
[4] See my *Contributions,* vol. III, pp. 151, 275.

There is an inscription in Spain, apparently a dedication to Isis, which begins with the words "in basilio *unio* et margarita ñ VI,"[2] and which is ascribed to the II. century and was given in 1623 to the Museum at Lorilla by Marquis Adam Centurion de Estepa. The words *unio et* are no longer legible. If they really existed on the stone, then the unique inscription is a forgery. Indeed, "*unio* et margarita ñ VI" is ridiculous, since in all the writings discussed above "unio" and "margarita" are interchangeable, even though now and then *unio* is "a large pearl."

We have seen that there was a warrant in the VIII. century writers to correct *hianio* of the vocabularies, which did not mean anything, to *unio*, through its association with "the One," Christ, as brought out in all the patristic writers. Lat. *unio*, however, does not mean "the One," but "a union, set." For this the Coptic word is *šōnf*, and this was taken over by the Arabs in the form شنف *šanf* or شنف *šunf* "the upper earring, a pendant suspended from the upper part of the ear." This Copt. *šonf* is itself from Gr. συναφή "conjunction, connection," which is translated in the glosses by "coniunctio, copula, series." When the

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[1] XXIII. 6. 85–88.

[2] *Corpus inscriptionum latinarum*, vol. II, p. 459 (No. 3386).

Arabs took over the Coptic word, they knew that it referred to the set of pearls or gems worn in the ear, but Arab. شنف *šanf* lost this meaning, and means only "the upper pendant." On the other hand, neither Gr. συναφή nor Copt. *šonf* ever acquired the meaning of "pendant." Hence Lat. *unio* arose at a time when the meaning of Copt. *šonf* was not yet lost in Arab. شنف *šanf*, that is, not later than the VIII. century, when the connection of the Arabs with Egypt was still felt.

XVIII. THE PEARL IN THE GERMANIC LAWS.

Arab. يتيمة *yaṭīmah* "the precious pearl," Isidore's *do item*, found its way into the *Corpus Glossary*, where we read "dos *uuituma* uel *uuetma.*" In the Laws of Alfred, of the end of the IX. century, there are introduced the Hebrew laws from Exodus. Exodus XXI. 7–11 runs as follows in ASaxon: "Đeah hwa gebycgge his dohtor on þeowenne, ne sie hio ealles swa đeowu swa ođru mennenu: nage he hie út on elđeodig folc to bebycgganne. Ac gif he hire ne recce, se đe hie bohte, laete hie freo on elđeodig folc. Gif he đonne alefe his suna mid to haemanne, do hiere gyfta: locige þaet hio haebbe hraegl; ⁊ þaet weorđ sie hiere maegđhades, *þaet is se weotuma* (*wituma*), agife he hire þone. Gif he hire þara nan ne do, þonne sie hio frioh."[1] "þaet is se *weotuma*" is clearly a gloss to "pretium pudicitiae" of the Vulgate. *Weotuma* occurs again in Exodus XXII. 17: "Gif hwa faemnan beswice unbeweddode ⁊ hire midslaepe, forgielde hie ⁊ haebbe hi siđđan him to wife. Gif đaere faemnan faeder hie đonne sellan nelle, agife he đaet feoh aefter þam *weotuman.*"[2] Here "aefter þam *weotuman*" is a translation of "iuxta modum dotis, quam virgines accipere consueverunt" of the Vulgate.

The word is not otherwise recorded in the ASaxon laws or documents and is distinctly a Bible gloss. It must have been picked up by an Anglo-Saxon in Central France at the end of the VIII. century, since it is found in the Burgundian laws. Here the law from Exodus

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[1] F. Liebermann, *Die Gesetze der Angelsachsen*, Halle a. S. 1898, vol. I, p. 30.

[2] *Ibid.*, p. 38.

XXII. 16 is found in the following form: "Si quis puellam rapuerit, *pretium, quod pro puella daturus erat*, in novigildo cogatur exsolvere, et multae nomine solidos XII."[1] Elsewhere *pretium puellae, pretium nuptiale* is used in similar combinations: "Si vero puella, quae rapta est, incorrupta redierit ad parentes, sexies *puellae pretium* raptor exsolvat, multae autem nomine solidos XII;"[2] "si vero puella sua sponte expetierit virum et ad domum illius venerit, et ille se cum illa miscuerit, *nuptiale pretium* in triplum solvat; si autem incorrupta redierit ad domum suam, remota omni calumnia revertatur;"[3] "et quoniam Aunegilde post mariti prioris obitum in sua potestate consistens se antedicto Fredegisclo non solum ex parentum consensu, verum etiam proprio arbitrio et voluntate donaverat, et maiorem *nuptialis pretii* partem sponso adnumerante perceperat, fidemque placiti libidinis ardore succensa disrumpens ad Baltamodi non tam vota cucurrit, quam ad consuetum flagitium remeavit, atque ob hoc non aliter tantum crimen tantumque dedecus libertatis quam sanguinis sui effusione debuerit expiari, tamen districtioni publicae dierum reverentiam praeponentes iubemus, ut Aunegilde divino humanoque dehonestata iudicio pretium, hoc est CCC solidos, Fredegisclo coacta dissolvat;"[4] "quaecumque mulier natione barbara ad viri coitum spontanea voluntate furtim convenerit, *nuptiale pretium* in simplum tantum eius parentibus dissolvatur; et is, cui adulterii dicitur societate permixta, alterius postmodum coniugio si voluerit societur."[5] If we compare these laws with the corresponding Roman law, "De raptibus virginum et viduarum,"[6] we at once perceive that the conception of a "nuptiale pretium" is foreign to it and merely results from Exodus.

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[1] *MGH., Leges*, sect. I, vol. II^1, p. 51 (XII. 1).

[2] *Ibid.*, XII. 2 (p. 51).

[3] *Ibid.*, XII. 4 (p. 51).

[4] *Ibid.*, LII. 3 (p. 85 f.).

[5] *Ibid.*, LXI (p. 93).

[6] *Ibid.*, IX (p. 132 f.).

In the later Burgundian laws *wittimon* takes the place of "nuptiale pretium:" "Puella, quae marito traditur, patrem et fratres non habens nisi patruum et sorores, de *wittimo* tertiam partem patruus accipiat, et alteram tertiam sorores sibi noverint vindicandum. Si vero puella sine patre maritum accepit, fratres non habens, placuit, ut de *wittimo* tertiam partem mater accipiat et alteram tertiam proximiores parentes;"[1] "mulier quae ad secundas nuptias traditur, *wittimon* eius a prioris mariti parentibus vindicetur. Si vero tertium maritum accipere voluerit, *wittimon*, quod maritus dederit, mulieri proficiat;"[2] "de *wittimon* vero si demandaverit pater, ut non queratur, demandatio eius non valeat; sed sicut lex alia expressit, proximus parens accipiat, ita ut de eo, quod acceperit, tertium solidum in ornamentis puella accipiat;"[3] "de *wittimon.* Quicumque Burgundio alicuius obtimatis aut mediocris sine ordinatione patris cum alicuius filia se copulaverit, iubemus, ut tripla solutione obtimatis ille qui fuerit patri ipsi, cum cuius filia se copulavit et eum ante scire non fecit nec consilium petiit, CL solidos ei cogatur exsolvere, et multae nomine solidos XXXVI. Leudis vero si hoc praesumpserit facere, similiter in tripla solutione, hoc est solidos XLV, et multae nomine solidos XII."[4] The last case makes it perfectly clear that in the Burgundian, as in the ASaxon, laws the *wittimon* is the "pretium pudicitiae" or "dos quam virgines accipere consueverunt" of Exodus.

In the Arabic version of Exodus, as given by Saadya, and unquestionably similarly in earlier translations, the end of XXII. 17 is "secundum dotem virginum كمهر الابكار *kamahrin 'al-'abkārin.*" *'Abkār* is the plural of either بكر *bikr* "virgin, unperforated pearl" or بكر *bakar* "morning." We have already seen from the previous discussion that بكر was glossed somewhere as مرخان ويتيمة *murǵān wa-yaṭīmah.* ويتيمة, if not marked with vowel signs, would be read *wiṭimah*, and it is this that entered into the ASaxon and Burgundian laws; but the reading مهر المرخان *mahr 'al-murǵān* has led to far more weighty consequences.

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[1] *Ibid.*, LXVI. 1, 2 (p. 94 f.).
[2] *Ibid.*, LXIX. 1, 2 (p. 95 f.).
[3] *Ibid.*, LXXXVI. 2 (p. 108).
[4] *Ibid.*, CI. 1, 2 (p. 114).

The Gothic forger who composed a poetical donation, dating it in the year 615, has the lines: "Ecce decem inprimis pueros totidemque puellas | Tradimus atque decem virorum corpora equorum, | Pari mulos numero damus inter caetera et arma, | Ordinis ut Getici est et *morgingeba* vetusti."[1] *Morgingeba* is an exact rendering of مهر المرخان *mahr 'al-murǵān*, *geba* corresponding to *mahr*, and *morgin* being the untranslated مرجان *murǵān.* No such word is found in the Visigothic laws, and it is nothing but the Hebrew "dos virginum," as passed through an Arabic translation. There was no escape from the result. Through the Arabic the pearl became the one born from the morning dew; hence also *morgin* is not only the pearl, as found in at least one Latin version of the *Physiologus*, but also "the morning," that is, the *morgingeba* was conceived as the gift to the bride after the nuptial night. This is neither Roman nor Germanic law, but Hebrew law as passed through an Arabic gloss. Thus arose Goth. *maurgins*, AS. *morgen*, OHG. *morgan*, etc., "morning."

Alas, even *geba* is a Germanic ghost word! In Jerome's *Onomastica* we find "*Zebdi* dotis meae, *Zebedaeus* dotatus siue fluens iste, *Zabadia* dotata domini," all from Heb. זֶבֶד *zebed* "gift." The *Corpus Glossary* gives "*Zebedeus* dotatus," and the Keronian glosses have "*Zebedeus* donatus *kepo*," where the German form is already established. But AS. *gifeđe* "datus, concessus," *gifte* "dowry," hence ONorse *gipta* "to marry," show that *Zebede* was read as *Ȝebede* and changed into *gebede*, just as *gizeria* was changed into *gigeria*.[1]

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[1] *Ibid.*, sect. V, *Formulae*, p. 584.

It has already been shown that Gregory of Tours is, to say the least, highly interpolated.[2] In his history is given a pact which contains the sentence, "De civitatibus vero, hoc est Burdegala, Lemovecas, Cadurcus, Benarno et Begorra, quae Gailesuinda, germana domnae Brunichilde, tam in dote quam in *morganegyba*, hoc est *matutinale donum*, in Francia veniens certum est adquisisse."[3] Either the reference to the *morganegyba* is an interpolation or the whole document is a forgery. The word occurs in the *Lex Ribuaria* (XXXVII. 2), the *Leges Alamannorum* (LIV. 2), and frequently in the Langobard laws, where we also find the form *morgincapud.* It follows from my investigation that all these laws were codified in the VIII. century, and that they were composed in some such way as the Pseudo-Isidorean decretals. Much is probably genuine, but a considerable amount was made up to suit the fancy of the codifier.

I have already shown that the *Lex salica* contains material which did not exist before the end of the VI. century, and this, too, in such a corrupt form that in reality it cannot be of an earlier date than the VIII. century. This is confirmed by the presence of the pearl story in it, although the *morgangeba* itself is absent. In a capitulary ascribed to Chlodowec we

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[1] See p. 195.
[2] See my *Contributions*, vol. III, p. 262 f.
[3] *Historia Francorum*, IX. 20, in *MGH., Scrip. rer. merov.*, vol. I, p. 376.

read: "De muliere vidua qui se ad alium maritum donare voluerit. Si quis mulier vidua post mortem mariti sui ad alterum marito se dare voluerit prius qui eam accipere voluerit reibus secundum legem donet et postea mulier si de anteriore marito filios habet parentes infantum suorum debet consiliare. Et si in dotis XXV solidos accepit III solidos *achasium* parentibus qui proximiores sunt marito defuncto donet; hoc est si pater aut mater desunt frater defuncti aut certe nepus fratris senioris filius ipsis *achasius* debetur. Et si isti non fuerint tunc in mallo judici hoc est comite aut grafione roget de ea in verbum regis mittat et *achasium* quem parentibus mortui mariti dare debuerant parti fisci adquirat. Si vero LXIII solidos in dotis accipiat solidi VI in *achasium* dentur hoc est ut per decinus solidos singuli in *achasium* debentur sic tamen ut dotem quem anterior maritus dedit filii sui post obitum matris sine ullum consorcium sibi vendicent ac defendant de qua dotem mater nec vendere nec donare praesummat. Certe si mulier de anteriore marito filios non habuerit et cum dote sua ad alias nuptias ambulare voluerit sicut superius diximus *achasium* donet. Et sic postea scamno cooperiat et lecto cum lectaria ornet et ante novem testes parentibus defuncti invitat et dicat: Omnis mihi testis scitis quia et *achasium* dedi ut pacem habeam parentum et lectum stratum et lectaria condigna et scamno coperto et cathedras quae de casa patris mei exhibui hic dimitto. Et hoc liceat cum duas partes dotis sui alio se dare marito. Si vero istud non fecerit duas partes dotis perdat et insuper fisco solidos LXIII culpabilis judicetur. De puellas militurias vel litas haec lex medietate servetur."[1] Here the woman retains her dower by giving for it the *achasium;* that is, just as the precious pearl, the *murǵān*, is obtained by giving up the stone *achates*, so the *morgangeba* is retained by abandoning a small part of it, the *achasium*. This *achasium* is the origin of Fr. *achat* "purchase," *acheter* "to buy," which, on the one hand, becomes confused with LLat. *adquisitum* "that which is acquired," and, on the other hand, is explained as LLat. *accaptare*, although there is no warrant for such a word in any of the early documents, and produces Ital. *accattare*, OFr. *achapter*, OSpan. *acabdar*, OPort. *achatar* "to buy."

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[1] R. Behrend, *Lex salica*, Weimar 1897, *Capitulare* I. 7, p. 133 f.

XIX. THE WHALE.

To Hosea XII. 11 Jerome has the following commentary: "Si Galaad idolum, ergo frustra erant in Galgal bobus immolantes; nam et altaria eorum quasi acervi super sulcos agri. LXX: Si non Galaad est, ergo falsi erant in Galgala principes immolantes, et altaria eorum quasi testudines super desertum agri. Pro eo quod nos transtulimus, *bobus*, qui Hebraice appellantur *surim*, LXX interpretati sunt, *principes*, qui vocantur *sarim*, verbi similitudine atque ambiguitate decepti. Rursum ubi nos posuimus, *acervos*, qui Hebraice appellantur *gallim* et proprie ϑῖνας significant, hoc est, ex arena tumulos congregatos, qui maxime in deserto, et in littoribus flante vento, vel augentur, vel minuuntur, LXX transtulerunt, *testudines* (χελῶνας): pro quibus Symmachus, *acervos lapidum*, interpretatus est: Theodotio *colles*. Et revera si ϑῖνας respicias, habent similitudinem magnarum testudinum in deserto agro, vel in ripis atque littoribus paululum humo eminentium. Quod ergo dicit, hoc est, *si in Galaad*, de qua scriptum est: Galaad civitas operantium idolum, supplantata sanguine, falsi sunt dii et perversa religio, et est trans Jordanem ubi duae tribus habitant, Ruben et Gad, et dimidia tribus Manasse, ergo et Galgal de qua in hoc eodem propheta legimus: Omnis malitia eorum in Galgala, quae est post tergum Bethaven; quicumque idola colunt, non boves diis immolant, sed bobus offerunt sacrificia, imitantes errorem

Samariae. Eo enim tempore quo haec prophetabantur, Galaad in regno decem tribuum erat; et Galgal sub imperio duarum tribuum, quae appellabantur Juda. Ergo et decem tribus et duae pari idololatriae errore deceptae sunt, et altaria eorum sicut acervi et tumuli de lapidibus congregati, sive de arenis. Cumque et illi et hi in captivitatem fuerint abducti, arae quondam eorum absque cultoribus testudinum vel tumulorum habebunt similitudinem. Quia vero *Galaad* interpretatur, *translatio testimonii*, et *Galgal*, *volutabrum*, hoc dicere possumus, quod principes haereticorum testimonia veritatis transferant in mendacium, et quidquid colunt, idolum sit, et sacrificia eorum habeant similitudinem, vel acervorum de lapidibus congregatorum, vel testudinum. Quomodo enim ϑίνες, et acervi hinc atque illinc de lapidibus et sabulo congregantur: ita et haeretici de sapientia saeculari et argutiis hominum, fraude atque mendacio simulacra componunt. Et cum hoc fecerint, tardis gressibus in uno moventur loco, et totum orbem occupare non possunt. Testudo tardigrada et onerata, immo oppressa pondere suo, non tam ambulat quam movetur, haereticorum gravissima peccata significans, qui suis in coeno et volutabro luti erroribus immolant, adorantes opera manuum suarum, et instar boum cuncta pro terrenis frugibus laborantes."[1]

In the *Onomastica sacra* Jerome added a new interpretation to *Galaad*, namely "aceruus testimonii,"[2] "aceruus testis."[3] In the Syriac ܓܳܠܳܐ *gålå* means "acervus, testudo," the latter in the double sense of "protection, rampart" and "tortoise," and this Syriac word found its way into a Graeco-Latin glossary as "cheloni *golai*."[4] From here it found its way into other glossaries: "testudo coniunctio scutorum; testudo quam uulgo testudinem alii *golaiam* dicunt grado lento graditur secum domum suam portans dorso picta et es uenenosa; testudo glarea depauimentum."[1] One glossary quoted only the reference to the turtle and gravel: "testudo quam uulgo *guleiam* uocant est in mari alia est quadrupedum in terra; testudo glarea idest pauimentum;"[2] another left out the word *guleia*, but otherwise quoted the same lemmata: "testudo ordo militum in modum coronę interius terga habentes uel duritia glarea; testudine genus quadripedi est; testudo grarea idest pauimentum."[3] That all this is based on the Hebrew and Syriac is shown by the specific meaning "glarea," which is recorded in the Syriac and Hebrew. The *Corpus Glossary* has the readings "testudo densitas ramorum" and "duritia, *gallacia*," where the last is a corruption of *golaia* of the other vocabularies.

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[1] Migne, *P. L.*, vol. XXV, col. 928 f.

[2] VII. 4.

[3] XIII. 17.

[4] *Hermeneumata monacensia*, in Goetz, vol. III, p. 189.

It can now be shown that the Syriac or Hebrew word *golaia* for "turtle" came in through the Arabic. We have Arab. سلحفا *sulaḥfa*, also *silḥafa*, etc., "the tortoise, called in Persian باخة *bāḫah* and كسف *kasaf*." Alcalá gives سلخافة *sulḫāfah*, and others سخلفا *suḫlafā*. Dozy has pointed out that this must be the same as Alcalá's *çulfāka* "landre que mata, a tumor of a pestiferous nature," and points to the double meaning of Span. *galapago* "tortoise, cleft." The Spanish word arose unquestionably from the hybrid word *gala* + *bāḫah*, both of which mean "tortoise." This is confirmed from the Latin glosses, where we read "*golaia* idest gala pagomarinosiueriano"[4] and "*golaia* .i.

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[1] *Codex Vaticanus 3321, ibid.*, vol. IV, p. 184.

[2] *Codex Vaticanus 1468, ibid.*, vol. V, p. 516.

[3] *Glossae A A, ibid.*, p. 486.

[4] *Glossae Cassinenses, ibid.*, vol. III, p. 539.

galapacomagrinos siue finocreta."[1] These two corrupt glosses become at once clear from the ASaxon glosses. We have in the *Corpus Glossary* "testudo *borddđeaca*," and in the *Epinal Glosses* "testudo *borohaca ł sceldreda ł ȷaenucae*." The last word is AS. *fen* + *ȳce*, lit. "swamp + toad," hence Aldhelm's "testudo palustris" is translated in the ASaxon Riddles by *fenȳce*. *Finocreta* of the Latin Glossary is, therefore, AS. *fenȳchrēđa* "the covering of the testudo;" hence the glosses containing *galapago* have gone through an ASaxon source, and should be corrected to "*golaia* .i. *galapago* marino siue fenȳchrēda." But "galapago," which is the Syrio-Arabic term *galabāḥah*, has entered the Spanish as *galapago* "tortoise, cleft." That *golaia* was known in Spain is shown by the Latin-Arabic glossary, where we read "testudo animal quod testam gerit i. e. *goloia* item testudo coniunctio scutorum cithara concameratio templi uel glarea i. e. pulmentis." Ducange also records "testudo, quam vulgo *guolatiam* vocant; testudo, quam vulgo *golia* dicunt." Indeed, Alcalá records "tortuga galapago *calapag*," which shows that the Arabs knew the word and that Arab. *çulfāka* in Alcalá and the other Arabic tortoise words are corruptions of the same.

For Syr. *gåldå* "acervus," however, a native Arabic word was used in Spain. We have Arab. نبر *nabara* "he raised, elevated a thing," hence نبر *nibr* "heaps," عنبار *'anbār* "magazine, chamber," نبرة *nabrah* "a swelling in the body," منبر *minbar* "the pulpit." It became necessary for the Arabs to maintain the "testudo" glosses, but no exact idea was connected with the marine animal, except that it was something like a shield. The Arabic "heaps" glosses by a slight change admitted of such a transference. It was taken to be the sperm whale, عنبر *'anbar*, which, therefore, had also to be "a shield;" hence we have عنبر *'anbar* "ambergris, an excrement found in the belly of a certain great fish which is called by the same name, shields are made of its skin." Thus we have the "testudo" gloss preserved in all its amplitude.

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[1] *Hermeneumata Codicis Vaticani Reginae Christinae 1260, ibid.*, p. 564.

There can be little doubt that عنبر *'anbar* is an Arabic word, and that the original meaning, still preserved for it, was "saffron," for which we get also the form عبير *'abīr* "a certain mixture of perfumes compounded with saffron, saffron itself." When the Arabs discovered the sperm whale along the East coast of Africa and obtained from it the ambergris, which lent itself to the same purposes as the saffron, the latter name was transferred to it, and the whale itself was named عنبر *'anbar*. The meaning "shield" is, in all likelihood, not derived from the animal, since it is not likely that the whale skin could have been so used.

Already in classical times Lat. *scutum* had the meaning of "protection." In the Bible it is quite frequent in this acceptation: "*scutum* auxilii tui," Deut. XXXIII. 29; "Deus *scutum* meum," 2 Reg. XXII. 3; "*scutum* est omnium sperantium in se," 2 Reg. XXII. 31; "ut *scuto* bonae voluntatis tuae coronasti nos," Psal. V. 13; "*scuto* circumdabit te veritas ejus," Psal. XC. 5. In the Langobard law we read "omnes waregang, qui de exteras fines in regni nostri finibus advenerint, seque sub *scuto* potestatis nostrae subdederint, legibus nostris Langobardorum vivere debeant."[1] In the ASaxon laws and elsewhere *scildan* is several times used for "protegere, preuidere, noxium dimittere," even as in the Slavic language Lat. *scutum* has produced *ščit, štit* "shield, protection."

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[1] *Roth.* 367, *MGH., Leges,* ed. Pertz, vol. III, p. 85.

There is an OHGerman gloss to 1 Maccab. IV. 6, "tegumenta *schuta*,"[1] although in other MSS. we read "tegumenta *scilti, scilta*."[2] The first is not a mistake for the second, but is simply the Lat. *scuta*, with which, without warrant, *tegumenta* in Maccab. was confused, although the Gr. καλύμματα indicates that "a covering, a cloak" was meant. Now "covering" is given in the Latin glosses as "pallas sindones uel coopertorium altaris," and "sindonis amictoria linea, quibus operiuntur humeri," and we have the ASaxon glosses "*scȳte* sindo," from which we ultimately get Eng. *sheet*. In the *Corpus Glossary* is found the gloss "sandalium *scete lođa*," but this is obviously a blunder, since *lođa* is frequently glossed by "lacerna" or "stragulum," as it should be, while "sandalia" is glossed in the *Epinal Glossary* as "calciamenta que non habent desuper corium," and the *Corpus Glossary* has "sandalia calciamenta." As *lođa* indicates, *scēte* belongs to a lemma "lacerna" or "stragulum," or, what is more likely, "sandalium" is a misread "sindonem." Thus we are left for the ASaxon with only the meaning "cloak, sheet" for *scēte, scȳte.*

In Isidore we read: "Paenula est pallium cum fimbriis longis. Lacerna pallium fimbriatum quod olim soli milites utebantur; unde et in distinguenda castrensi urbanaque turba hos togatos, illos lacernatos vocabant. Inde autem lacernae quasi amputatis capitibus fimbriarum, neque ita laxis ut sunt paenularum."[3] Isidore confused *lacerna* with *lacinia*, even as Apuleius regularly used "lacinia" for the whole garment; hence he jumped to the preposterous conclusion that a "lacerna" was, as it were, a garment with the tassels cut off. From this confusion of "lacerna" and "lacinia" we get the Goth. *skauts* for "fimbria." The corresponding ASaxon glosses are instructive: *sceat*, *sceata* are used for "garment, cloak, cloth, napkin, bosom, lap, bay, nook, corner, projection." In Alfric's vocabulary *sceat* is the translation of "nebris heortes hyd, hart's hide." Even in the X. or XI. century we find "mantile, gausape" for it, but, at the same time, we get "*sceata* pes ueli, *sceatline* propes," where the meaning is transferred to the edge of the sail. Thus there is no doubt possible as to the identity of Goth. *skauts*, etc., with Lat. *scutum*.

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[1] Steinmeyer and Sievers, *op. cit.*, vol. IV, p. 285.

[2] *Ibid.*, vol. I, p. 691.

[3] XIX. 24. 14.

In OHGerman we get but late *scōza* "lacinia, plaguncula, gremium," -*scōz* "cornered." As we have AS. -*scīte* "cornered," we once more get an identity of all the words so far discussed. MHG. *schützen* "to protect" is apparently a late introduction from LGerman, since we have MD. *scutte* "sluice, dam," *schutten* "to shut up, let pass through a sluice." That these are all borrowed words, follows from the phonetic variations, MLG. *beschutten*, *beschudden* "to shut up, protect, cover by pouring on," *schut* "protection." Side by side with Ger. *schützen* we have *schütt* "damming of water," *schütte* "alluvial hills, circumvallation, place for heaping things."

AS. *scyttan* "to shut, shoot a bolt, cause rapid movement" is clear enough in the first acceptation, since "to shut" follows easily enough from "to protect." But AS. *scyttel* "bar, bolt," *scytel* "dart," *scutel* "dart, arrow" show that "to shoot a bolt, cause rapid movement" relates *scyttan* to *scūdan* "to shake, tremble," in spite of the change of final consonant. Here we have not only a borrowed word, but also a borrowed etymology. In Isidore we read: "*scutum* appellatum eo quod a se *excutiat* telorum ictum," "the shield is so called because it shakes out the darts." The *Codex Sangallensis 912* has the gloss "vibrare asta intorquere militare (minitare)."[1] This runs in the Keronian glosses as follows:

Uiberare	*scuten* hnuttē
asta	ast scaft
intorquire	pincā
minitare	huuennen.

Just as *ast* is a repetition of Lat. *asta*, so *scuten* is here a reminiscence of Isidore's "scutum" etymology, no matter whether it represents *scutum* or *excutere*. As a matter of fact, there is another, more weighty reason why *scutum* should have been used to express the idea of shooting. "Cum *scuto* et fuste contendere" is the usual IX. century formula for a judicial duel.[2] In the Langobard law we have similarly "sub uno *scuto* per pugnam dimittere,"[3] where "sub uno *scuto*" means "merely by duelling," hence it was natural to think of "scutare" or "scutere," which is recorded only as *scuten* in the Keronian glosses, as referring to shooting.

It can now be shown that some of the connotations of *scutum* are due to Arabic influence. During and after the conquest of Spain the Arabs invited the Spaniards to become Mohammedans or to pay the جزية *ǵaziyyah* "a capitation tax" which assured them of full protection,[4] ذمة *dzimmah*, and, "by virtue of the pact and the payment of the tribute, the lives and persons of the *dzimmis* or subjects were *ipso facto* placed under the safety and defense of the Moslem law and government."[1]

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[1] Goetz, vol. IV, p. 295.

[2] See *MGH.*, *Leges*, sect. II, Vocabulary, sub *scutum*.

[3] *Roth.* 164–166.

[4] Simonet, *Historia de los Mozárabes de España*, Madrid 1897–1903, p. 40 ff.

The Christian rulers were not slow in adopting the Arabic method of protection, since it insured them a new source of extortion from the subject nations. In the Cortes of Barcelona of 1064 we already find this protection, called *emparamentum*, in full swing.[2] The frequent phrases "recipio et *emparo* te sub mea custodia et defensione,"[3] "recipio in mea *emparanza* ac defensione,"[4] make it clear that we are dealing here with the same kind of protection as offered by the Arabic conquerors and independently referred to in the Langobard law as being under the "scutum potestatis."

It has already been shown that Rothar's Edict was composed by someone acquainted with Gothic sources, and in the case of the waregang who comes under the "scutum potestatis" we fortunately have a corresponding reference in the year 974 in Spain. In the Fuero of Castrojeriz it says: "Damus foros bonos ad illos Caballeros, ut sint infanzones, et firmitur super infanzones deforas Castro, et populetur suas hereditates ad avenientes, et *escotos* et habeant illos sicut infanzones et si sue gentes aleves fuerint, deshereditent illas."[5] The Spanish translation of it reads: "Et que puedan poblar sus heredades de homes forros, é avenedisos, é que los puedan haber por vasallos así como los han los fijosdalgo de Castiella."[6] The permission is given to settle on the land certain newcomers and *escoti*, who may be treated as vassals. The Spanish translation "forro" for *escotus* shows that it means "a free man," from Arab. حر *ḥurr* "free man," but the connection with "avenientes" shows that we are dealing here with the waregang, who, having come under the "scutum," becomes like a free man; hence *escotus* is from "scutum," although the regular Spanish word for "to protect" is *escudar*. Henry the First in 1115 freed London from the *scot* and danegild,[1] which would indicate that it was originally due to the Danes and had grown to be a burdensome tax.

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[1] *Ibid.*, p. 77.

[2] "Simili modo firmissime observetur treuga et securitas quam perceperit princeps inter inimicos teneri, quamvis ipsi inimici eandem treugam ei non auctorizaverint, et *emparamentum* quod fecerit princeps per se vel per nuncium suum vel per suum sagionem vel per suum sigillum, nemo sit ausus ei *desemparare* nisi primum fatigaverit se de directo in principem ad consuetudinem ipsius curie," *Cortes de los antiguos reinos de Aragón y de Valencia y Principado de Cataluña*, Madrid 1896, vol. I, p. 25*.

[3] J. Balari y Jovany, *Orígenes históricos de Cataluña*, Barcelona 1899, p. 485.

[4] *Ibid.*, p. 486.

[5] T. Muñoz y Romero, *Coleccion de fueros municipales*, Madrid 1847, vol. I, p. 37.

[6] *Ibid.*, p. 44.

In order to show the overwhelming influence of Arabic institutions upon the Germanic ideas in the VIII. century, especially as referring to the "scutum" words, it is necessary first to touch upon a vastly greater and more important family of words, originally connected with Arabic magic, but ultimately forming the foundation of Germanic religious and legal words.

There is an ONorse word *háls-boc* "a book to swear upon."[2] In the ASaxon versions of Matth. XXIII. 5 *halsbec* is used for "philacteria:" "hig to-braedađ hyra *heals-baec* (*hals-baec*, *heals-bec*)." We have here a derivative of Arab. اخلاص *'iḫlāṣ*, the name of the CXII. sura of the Koran, which runs as follows: "Say, God is one God; the eternal God; he begetteth not, neither is he begotten; and there is not anyone like unto him." This sura was used as one of the chief phylacteries in Arabic magic. It had as much merit as one third of the Koran, and was employed against all kinds of sorcery.[3] This Arab. اخلاص *'iḫlāṣ* is derived from خلص *ḫalaṣa* "he was or became خالص *ḫāliṣ* clear, pure, safe, free, genuine." From this a large number of Germanic words are derived. AS. *halsbec* means decidedly "amulet writing," hence the early sources report *halsere, haelsere* "augur, exorcist," *halsian* "to exorcise, conjure, implore, beseech," *haelsian* "to foretell," *haelsung* "divination, augury," and, side by side with it, the abbreviated *hael* "omen, auspice." That *hāēlan* "to heal, cure, make safe," *hāēl* "health, happiness, salvation," *hāēlend* "the Saviour," *hālor* "salvation," *hāl* "whole, hale, safe" belong here follows not only from the semantic relationship, as in Arabic, but also from *hāls* "health, salvation."

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[1] "Et sint quieti de *scot* (*eschot*, *schot*) et de danegildo et de murdre," Liebermann, *op. cit.*, vol. I, p. 525.

[2] "þeir scolo taca cros ihönd ser eđa boc þa, er meire se en *háls boc*," *Grágás*, Copenhagen 1852, vol. I, p. 76.

[3] E. Doutté, *op. cit.*, p. 216 f.

The forms in OHGerman are even more instructive. Here we have *heilison* "to divine, conjure," *heilisunga, heilisod* "omen, auspice." The very uncommon form *heilisod*, obviously from an original *hālisod*, is a very close rendering of Arab. خالصات *ḫāliṣat*, which is used for اخلاص *'iḫlāṣ*, the CXII. sura, the sovereign amulet. While in ASaxon there seems to be no precise line of demarcation between the "augur" and "safety" words, the shorter OHG. *heil*, Goth. *hails* "well, sound" are abbreviated from the longer form of the Arabic on the basis of a misunderstood etymology in the *Onomastica sacra.* Here we read "*Elisaeus* dei mei salus," "*Elisa* deus meus uel eius salus uel ad insulam uel dei mei saluatio," "*Elisue* dei mei salus." The etymology of "Elisaeus" is repeated in the *Corpus Glossary.* The Gothic Bible, following the Gr. Ἐλίσαιος, spells the word *Haileisaius*, of which *hails* seems to be an abbreviation, the borrower not having been aware of the fact that the first part, *hailei*, refers to "deus meus," and only *eisaius* to "salus."

The Arabic Christians used خلص *ḥalaṣa* for the Christian acceptation of "to save," and the Christian Redeemer was, therefore, مخلص *muḥallīṣ*. In Psalm CXV. 25 *osanna* of the Latin version is translated by Saadya تخلصنا *ṭuḥalliṣnā*, literally "save us." "Osanna" has played an enormous part in the liturgy, as is evidenced by Jerome's letter to Damasus,[1] in which he explains the Hebrew origin of the word and points out the importance of Psalm CXV, in that it foretells the coming of Christ. While the Gothic Bible did not have the courage to translate *osanna*, yet in Mark XV. 18 it translated "χαίϱε ave" by *hails*. It is clear that here we have the original word, from which the adjective *hails* was formed, with apocopated *s*. That this *hails* was the usual Gothic word for an exclamation is proved by a Latin poem, *De conviviis barbaris*, which consists of two lines, "Inter *eils* goticum 'scapia matzia ia drincan' | Non audet quisquam dignos edicere versus."[2] *Eils* means "hail!" Massmann put the *Codex Salmasianus*, in which this poem is placed, in the VII. century;[3] Riese placed it in the VII. or VIII. century, and Quicherat and Delisle put it in the VIII. century.[4] An inspection of a MS. page reproduction in Wattenbach and Zangemeister shows that the uncials, with their capitals and red rubrics, are more likely of the beginning of the IX. century. There can be little doubt that the Arab. خلص *ḥalaṣa* "to save" is responsible for the "osanna" meaning, hence we get once more the confirmation of the fact that the Gothic Bible was translated from a bilingual Graeco-Arabic original.

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[1] Migne, *P. L.*, vol. XXII, col. 375 ff.

[2] A. Riese, *Anthologia latina*, Lipsiae 1894, vol. I^1, p. 221 (No. 285).

[3] *Zeitschrift für deutsches Alterthum*, vol. I, p. 379.

[4] Riese, *op. cit.*, p. XIII.

John VIII. 36, "si ergo vos filius liberaverit, vere liberi eritis," has led to the extension of Christ's attribute as not only "the Saviour," but also "the Liberator." In St. Augustine's *Tractatus* XLI this idea is expressed as follows: "Liberat ergo ab hac servitute solus Dominus: qui illam non habuit, ipse de illa liberat; solus enim in hac carne venit sine peccato. Nam quos videtis in manibus matrum parvulos ferri, nondum ambulant, et jam sunt compediti; traxerunt enim de Adam quod solvatur a Christo. Pertinet etiam ad ipsos, cum baptizantur, ista gratia quam Dominus pollicetur; quia de peccato solus liberare potest, qui venit sine peccato, et factus est sacrificium pro peccato."[1] "Mane in servitute Dei, in libertate Christi; mente servi legi Dei tui. Noli te dare concupiscentiis tuis: sequendo eas, vires eis addis; dando eis vires quomodo vincis, quando contra te inimicos nutris viribus tuis? Quae igitur libertas plena atque perfecta in illo Domino Jesu qui dixit, Si vos Filius liberaverit, tunc vere liberi eritis; quando plena et perfecta libertas erit? Quando nullae inimicitiae, quando novissima inimica destruetur mors."[2] "Dominus noster etiam in forma servi non servus, sed in forma etiam servi Dominus (fuit quippe illa carnis forma servilis, sed quamvis esset similitudo carnis peccati, non erat caro peccati), libertatem promisit credentibus in se."[3] Moreover, the Lord, Dominus, is the Liberator, and, although a slave in form, is Himself free.

This led in the Germanic languages to the creation of a word for "Lord" from a root "free." We have Goth. *frauja* "lord," *fraujinon* "to be a master," AS. *freá* and the indeclinable *freo* "lord, master," the latter also meaning "woman, mulier ingenua," *frowe* "lady, the Virgin Mary." In OHGerman we have chiefly in Otfrid *fro* "dominus," otherwise *frawa* "domina, matrona," and the indeclinable *fron*, *frono* "dominus, dominicus," hence "publicus." That *frono* meant "one of high degree, magnificent" is proved by the adjective *fronisc* "distinguished, famous, elegant, mystical, secret." All these come from Arab. حر *ḥurr*, which produced Span. *forro*, *horro* "free," while OSpan. *horra*, Arab. حرة *ḥurrah* were the usual words for "lady, queen, princess, empress."[1] It is not only in Spanish that the initial letters interchanged, for we have also فر *furr*, nominative *furrun* "the best, choice of men," although this is, no doubt, from a different root. The latter aided the change of Arab. حرية *ḥurriyyah* "freedom, free persons collectively, the eminent, elevated, noble persons of the Arabs and of the foreigners" into AS. *freá*, *freo*, while Arab. فر *furr*, *furrun* led to Goth. *frauja*, OHG. *fron*, etc., "master." The first produced OHG. *frī*, Goth. *frei* "free," etc.

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[1] Migne, *P. L.*, vol. XXXV, col. 1694 f.
[2] *Ibid.*, col. 1699.
[3] *Ibid.*, col. 1700.

Goth. *frei-hals*, AS. *freols* "freedom," OHG. *frī-hals*, ONorse *frjals* "free," have been explained as having in its second part *hals* "neck." Kluge, in his *Etymological Dictionary*, says: "it signifies with a free neck,—a ring around the neck was an OTeut. mark of a slave." All very well, but *hals* is the Arab. خلص *h̤alaṣa* "to set free," which I have already discussed. It is true, *hals* assumed the meaning "neck," because the Arabic expression for "to emancipate" was "to free a neck," حرر رقبة "he freed a neck, i. e., a slave."[2] One of the

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[1] Simonet, *op. cit.*, p. 115.

[2] Lane, *An Arabic-English Lexicon*, sub حر.

Arabic words for "neck" is عنق *'unq*, and we have also عنق *'anaq* "length of the neck." Apparently there was a Gothic gloss *frei-hals=frei-'unq*, which produced the curious Goth. *hals-agga* "neck." But the other Germanic languages were more fortunate: they split the composite gloss *hals-agga* into two parts, and so we get OHG. *hals* and *hnac*, *nac*, in Swabian-Frankish *anke*, *genick*, MHG. *genick* "nape of the neck." AS. *heals*, *hals* "neck" did not maintain itself in English, but *hnecca* produced Eng. *neck*.

In the Langobard laws *frea* "liberta" occurs but twice: "Si quis *fream* alienam sine volontatem de mundoald eius movere de casa, ubi inhabitat, presumpserit, et alibi duxerit, conponat ille qui in caput est, pro inlecita presumptione ad mundoald eius solidos numero octonta. Et si liberi homenis cum ipso fuerent, conponat unusquis per caput solidos 20; servi autem in conpositione domini sui conpotentur. Nam si forte ille homo liber, qui ipsam *fream* de casa ubi est tolerit, et sibi uxorem duxerit, sic conponat, sicut gloriose memorie Rothari rex in anteriore edicto instituit," *Liut.* 94;[1] "contenit autem anterior edictus de *fream* suam, qui eam male tractaverit, ut amittat mundium ipsius; et non dicit, qualis sit ipsa mala tractatio," *Liut.* 120.[2] The first refers back to *Roth.* 186, 187, the second, to *Roth.* 182, but here "libera" and not "frea" is used.

In all other cases we find *fulcfrea* for "the liberated slave woman." *Liut.* 140 runs as follows: "Si quis homo liber habuerit servum vel ancillam, haldium aut haldiam coniucatus, et insticantem inimicum humani generis cum ipsa ancilla, que servus eius maritum habit aut cum haldia qui cum haldione eius copulata est, adulterium perpetraverit; ita statuimus, ut perdat ipsum servum aut haldionem, cuius uxorem adulteravit, et ipsa mulier insimul, ut vadant *liberi et absoluti fulfrealis, tamquam si thingati fuissent*, ubi voluerint; quia non est placitum Deo, ut quilevit homo cum uxore aliena debeat fornicari. Tamen de ipsa libertatem dicimus, *quia non possunt sic sine vera absolutione veri liberi esse*, nisi sicut edictus contenit, aut per thinx, aut circa altare, sicut nos instituimus; ideoque veniant ad palatio ad nos aut qui pro tempore princeps fuerit terrae istius, eos absolvat et faciat eorum prçceptum, et sint postea *certissimi liberi et absoluti.*"[1] According to this law, a *fulcfreal* is an "absolutus liber," a "verus liber," one who has been absolved in a prescribed legal fashion. *Liut.* 9 similarly points out that the complete manumission is absolute in the case of those who are "*fulcfreal* thingati:" "Si quis servum suum aut ancillam in manum regis dederit, et ipse princeps eos per manos sacerdotis circa sacrum altarem liberos dimiserit, sic permaneant liberi, sicut illi qui *fulcfreal* thingati sunt."[2] The same is implied in *Liut.* 23 and 55. *Roth.* 224 gives the procedure for such a manumission: "Si quis servum suum proprium aut ancillam suam liberos dimittere voluerit, sit licentia qualiter ei placuerit. Nam qui *fulcfree*, et a se extraneum, id est haamund, facere voluerit, sic debit facere. Tradat eum prius in manu alteri homines liberi et *per gairthinx ipsum confirmit;* et ille secondus tradat in tertium in eodem modo, et tertius tradat in quartum. Et ipse quartus ducat in quadrubium, et thingit in gaida et gisil, et sic dicat: de quattuor vias ubi volueris ambulare, liberam habeas potestatem. Si sic factum fuerit, tunc erit haamund, et ei manit *certa libertas;* postea nullam repetitionem patronus adversus ipsum aut filius eius habeat potestatem requirendi. Et si sine heredes legetimus ipse qui haamund factus est, mortuus fuerit, curtis regia illi succidat, nam non patronus aut heredes patroni."[1]

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[1] *MGH., Leges*, ed. Pertz, vol. IV, p. 146 f.

[2] *Ibid.*, p. 157.

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[1] *Ibid.*, p. 169 f.

[2] *Ibid.*, p. 111.

Whatever the origin of these laws may be, the non-Latin terms used in them show that they were codified under Arabic influence. We have Arab. طلق طلق *talq*, *tuluq* "loosed from his bond, set loose or free," طليق *talīq* "a man freed from slavery, emancipated." Langobard *fulcfreal*, therefore, is a misreading for *tulc-freal*, literally "free by an act of emancipation," or, as the Langobard laws say, "verus, absolutus, certissimus, confirmatus liber." That we have in *fulcfreal* a misspelling is proved by Goth. *tulgus* "firm," *tulgjan* "to confirm," *tulgiþa* "confirmation, security," OS. *tulgo* "very," AS. *tylg* "propensior;" but the Latin glossaries explain "propensior" as "qui incumbit animo ad pergendum siue bene siue mala." A *fulcfreal*, that is, *tulcfreal*, is "a more firmly established freedman," one of those who becomes an *amund* "a se extraneus," that is, "one completely free from his patron;" and this is again an Arabic word, namely, امون *'amūn* "secure, free from fear," from امن *'amina* "he was or became secure, in a state of security and safety."

The Langobard laws repeatedly say that the freedman comes into "manus, votum regis," and we have similarly found "scutum regis." We have also observed that in Spain the usual term for coming under the protection of the king was "in *amparamentum* regis." This *amparamentum*, from Arab. عنبر *'anbar* "shield," very soon deteriorated into blackmail, hence throughout western Europe words derived from this began to mean

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[1] *Ibid.*, p. 54 f.

"molestation, hindrance, embarrassment." Hence *amparamentum* is also recorded in the sense of "usurpation, what is unjustly held," and the clause was used, "donec totum *amparamentum* vel omnia *amparamenta*, quotiescumque facta fuerint, in integrum vobis sint restituta."[1] Similarly we get *amparare* "to protect" and "to invade, carry off, occupy." Generally these words were conceived as derived from *in* + *parare*, hence *imparamentum* "protection," and, in Aragon, *imparantia* "sequestration."

In the Romance languages we find, side by side, the contradictory meanings. Thus we have OProv. *ampar*, *ampara*, *empara* "protection," hence *emparo* "rampart, defence," and *empar*, *ampar* "opposition, contestation," *emparamen* "prohibition, confiscation," hence *emparar* "protect, forbid, take possession, learn, receive, seize." But we have also the phonetically more correct *embarrar* "to surround, protect" and *embarc* "impediment, indebtedness," *embarguier* "burden." Similarly, the same Arabic word is responsible for Fr. *emparer*, *embarras*, and Span. *embargo*, etc. In Spanish we have both *amparar* and *mamparar* "to protect," the latter from an Arabic participial form of عنبر.

While occasionally LLat. *embargum* was used for "hindrance," "in illa medietate, Grimardus non debet deinde mittere ullum *embargum*" (1160),[2] the writers of documents were tempted to confuse *amvaricare* with the common *amaricare* "to provoke, exasperate" of the patristic writers, and so wrote for the legal phrase "without let or hindrance" "sine omni *ammaricatione*:" "Dare et atducere debeatis omni annue in sancte marie de augusto mensis idest triticum bonu siccum modia dua tractum paratum usque ante regia domui nostre mensuratum at modium iustum de commedendum sine omni *ammaricatione*" (981);[1] "intus portas memorati sancti et venerabilis vestris monasterii mensuratum at modium iustum de commedendum et at quarta iusta: sine omni *ammaricatione*" (985);[2] "et in sanctum pasce similiter paria dua sine omnia *maricatione*" (988);[3] "at modium iustum da comedendum et at quarta iusta, absque omni *amaricatione*" (990);[4] "usque intus memorato sancto et benerabili nostro monasterio sine omni *amaricatione* insuper dedi tibi in beneficium et integrum unum modium de terra iusta ipsum" (990);[5] "idest auri tare unum bonum expendibile; et unum modium de fasioli rubei: et senium una quarta de nuce mundate: sine omni *amaricatione*" (992);[6] "et si alia chartula exinde inbenta dederit mittere illa debeamus aput vos sine vestra dapnietate aut *amaricationem*" (1014).[7]

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[1] Ducange, sub *amparamentum*.

[2] C. Douais, *Cartulaire de l'Abbaye de Saint-Sernin de Toulouse*, Paris, Toulouse 1887, p. 280.

As early as 766 Ato, a notary of St. Gall, wrote for this "sine ulla *marricione:*" "Et si filius meus post me voluerit, ipsud faciat, sin autem, ipsas res sine ulla *marricione* ad ipsum monasterium revertantur."[8] The identical phrase in the same clause is used again by Ato and by Hartker.[9] "Absque ulla contradictio vel

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[1] *Regii neapolitani archivi monumenta,* Neapoli 1849, vol. III, p. 1.

[2] *Ibid.*, p. 47.

[3] *Ibid.*, p. 81.

[4] *Ibid.*, p. 104.

[5] *Ibid.*, p. 106.

[6] *Ibid.*, p. 117.

[7] M. Camera, *Memorie storico-diplomatiche dell' antica città e ducato di Amalfi,* Salerno 1876, vol. I, p. 226.

[8] H. Wartmann, *Urkundenbuch der Abtei Sanct Gallen,* Zürich 1863, vol. I, p. 51 (No. 50).

[9] "Si genuerit filium de legetima uxore, hoc id ipsum faciat, sin autem post obitum ejus ipsas res sine ulla *marricione* ad nos revertantur," *ibid.*, p. 35 (No. 32); "si genuerint filium, hoc ipsud faciat, sin autem, post opidum amborum ipsorum ipsas res sine ulla *marricione* ad ipsum monasterium revertantur" (769), *ibid.*, p. 54 (No. 55); "si filius meus aut frater meus id ipsud facere voluerint, faciant, sin autem, ipsas res sine ulla *marritione* ad ipsum monasterium revertantur" (770), *ibid.*, p. 55 (No. 56).

marritione" occurs in a later document[1] and "absque ulla *marritione*" in another,[2] where other documents read simply "sine ulla contradictione" or add "vel minuatione."[3] The word entered into the *Cartae Senonicae*[4] and *Formulae Augienses*,[5] and became a regular term in Carolingian documents.[6] But *maracio* also means "truck, everything which aids in the business." In this sense it is used in the documents of the north of France in connection with salt works.[7] We have here the double meaning of Span. *ampara* as found everywhere, e. g., Basque *enparantza* "shed," *enparau* "surplus," *enparü* "obstacle, impediment," Catal. *ampara* "detention, embargo," *amparo* "protection," *embarger*, *embrassar* "to disturb, impede, embarrass." In the other languages one form has survived for "protection," another for "impediment," as, for example, Prov. *empara* "to aid," *embarga* "to sequestrate."

The Arab. عنبر *'anbar* underwent all kinds of transformations. The Span. *amparar* was taken to be a Lat. *imparare*, and produced Prov. *apara*, as though from Lat. *adparare* "to defend, protect," hence Ital. *para-petto*,[8] *para-occhi*, *para-sole*, in which *para* means

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[1] *Ibid.*, p. 97 (No. 103).

[2] *Ibid.*, p. 174 (No. 185).

[3] *Ibid.*, p. 60 (No. 60).

[4] "Propterea omnino tibi rogamus, ut, si veritas est, integra iustitia sine ulla *maratione* ei facias exinde," *MGH.*, *Leges*, Sect. V, *Formulae*, p. 193.

[5] "Presumptor, qui eam *marrire* presumpserat, partibus fisce sit obnoxius," *ibid.*, p. 345; "post discessum eius sine aliqua *marritione* ad supradictum traditione revertantur perpetualiter," *ibid.*, p. 350.

[6] "Et nemo per ingenium suum vel astutiam perscriptam legem, ut multi solent, vel sibi suam iustitiam *marrire* audiat vel prevaleat," *ibid.*, Sec. II, *Capitularia*, vol. I, p. 92; "ut nullum bannum vel preceptum domini imperatori nullus omnino in nullo *marrire* praesumat," *ibid.*, p. 93.

[7] See Ducange, sub *maracio*, and *Cartulaire de Saint-Jean d'Angély*, in *Archives historiques de la Saintonge et de l'Aunis*, vols. XXX and XXXIII, *passim.*

[8] Of course, this is mere popular etymology. The real root of the word is παραπετάσια of the *Codex Theodosianus:* "Aedificia quae vulgi more *parapetasia* nuncupantur, vel si qua aliqua opera publicis moenibus vel privatis

"protection," and *riparo* "protection, shield," Rum. *apĕra* "to protect." While Arab. عنبر *'anbar* "granary" entered the Slavic languages as *ambar*, no doubt through the Turkish, it is found chiefly in an apocopated form as *parcus*, *paricus*, though we have also the verb *imparcare* and the noun *imparcamentum* in the English laws. In the Bavarian laws *parc* is "a granary," "de illo granario quod *parc* appellant," but in the Ripuarian and English laws *parcus*, *parricus* is "an enclosure." In the *Corpus Glossary* we have "clatrum *pearuc*," and in the *Epinal Glossary* "clatrum *pearroc*." That the original meaning everywhere was "that which encloses" is proved by dial. Eng. *par*, *parr* "to enclose, confine."

An original LLat. *ambar* has, however, produced more derivatives. We have LLat. *ambarium*, *ambarrum* "enclosure," and this has led to *barra* "enclosure, bolt, bar," with an endless number of derivatives in the Romance languages. The most interesting LLatin derivatives are *barrare* "to enclose, obstruct, deceive," *barrium* "hamlet, enclosure." If LLat. *embargum* was taken to be *im* + *bargum*, the Italian also formed an *ex* + *barrare*, namely, *sbarrare* "to shut up, barricade" and *sbarra* "bar, obstacle, barrier." This produced late OHG. *sperran* and late AS. *besparrian* "to shut in,"[1] and OFr. *esparre*, OHG. *sparro*, etc., "spar, rafter."

We have already met with the LLatin form *ammaricare*, which, though parallel with *amaricare* of the patristic writers, was conceived as *admaricare*. There is little doubt that this arose orally from *amparicare*, *embargare* of the rest of France. Just as *amparicare*

sociata cohaerent, ut ex his incendium, vel insidias vicinitas reformidet, aut angustentur spatia platearum, vel minuatur porticibus latitudo, dirui ac prosterni praecipimus," XV. 1. 39.

[1] But we have already in the *Corpus Glossary* "oppilatae *bisparrade*," apparently a late correction, since the *Epinal Glossary* has "oppilauit *ḡ scdae*."

gave *parcus* and *embargare barra*, etc., so *ammaricare* produced *marrire*, *maratio*, *marricio*, which have already been discussed. From these we get OFr. *maremance*, *marance* "affliction, deception," Wallon. *marmense*, Namur *marimense* "annoyance, embarrassment," *marement*, *marrement* "pain, affliction," *marissement*, *marisson* "displeasure," *marir* "to lose one's way, be afflicted," hence *mar* "badly, unfortunately." The Germanic languages have preserved the original meaning of the word, which is that of "to impede," namely, OHG. *marrjan*, *merran*, AS. *merrian* "to hinder, annoy;" but the Gothic formed its word from *maricio* of the documents, hence *marzjan* "to annoy." The word has not survived in German, but we have Eng. *mar*.

Whether Arab. عنبر *'anbar* is of native origin or from the Persian,[1] it was brought into Spain by the Arabs, and gave rise throughout Europe to a very large number of words which developed out of the idea of "shield, protection" and its abuse, "obstacle, impediment," and formed three distinct roots, *par*, *bar*, and *mar*. The relation of the Arabic word to the homonymous words meaning "whale" and "amber" led to the story in the *Physiologus* of the whale who attracted his booty by the odor exhaled by it and was called "the shield." In the Syriac version[2] the fish *qēṭē* is called *'espes*. All the other versions are taken from the Greek and give the name ἀσπιδοχελώνη. The Syriac version shows that all proceeded from the Arab. عنبر *'anbar*, which means both "whale" and "shield."

We find ἀσπιδοχελώνη in Basil's *De contubernalibus*, «τί τὴν τῆς ἀσπιδοχελώνης ὕπουλον, ἀγάπην προτιμᾷς τῆς τοῦ ἀδελφοῦ γνησίας ἀγάπης, why dost thou prefer

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[1] P. de Lagarde, *Gesammelte Abhandlungen*, Leipzig 1866, p. 12.
[2] Ahrens, *op. cit.*, p. 73.

the feigned love of this aspidochelone to the genuine love of thy brother."[1] This reference to the feigned love of the aspidochelone shows that the writer had in mind that part of the *Physiologus* story which speaks of the animal which exhales a pleasant odor only to catch the unwary fish, and that this story is the parallel to Prov. V. 3, "for the lips of a strange woman drop honey and her mouth is smoother than oil."

The whale story in the *Physiologus* consists of two independent parts, one, the account of the large marine animal which is like an island that submerges, the other, the account of the whale which catches the small fish by enticing them with the odor which he exhales. It is this second story, generally given first, which is based on the Arabic homonym عنبر *'anbar* "whale, ambergris, shield," and produced the *Physiologus* myth. Hence the account in Basil's *De contubernalibus* can have arisen only after the middle of the VII. century, when the Arabs came in contact with the Greek learning in Egypt, and *De contubernalibus* is, *eo ipso*, a late forgery. 'Ασπιδόεσσα χελώνη occurs also in Oppian's Ἁλιευτικά (I. 397), which similarly marks this work as a forgery, but here we have many other proofs of its spuriousness, as has already been shown.

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[1] Migne, *P. G.*, vol. XXX, col. 824. See also A. S. Cook, *The Old English Elene, Phoenix, and Physiologus*, New Haven, London 1919, p. LXXXIV.

XX. THE UNICORN.

In Isidore's *Etymologiae* there is a description of the unicorn which presupposes the story in the *Physiologus*. It runs as follows: "Rhinoceron a Graecis vocatus. Latine interpretatur in nare cornu. Idem et monoceron, id est unicornus, eo quod unum cornu in media fronte habeat pedum quattuor ita acutum et validum ut quidquid inpetierit, aut ventilet aut perforet. Nam et cum elephantis saepe certamen habet, et in ventre vulneratum prosternit. Tantae autem esse fortitudinis ut nulla venantium virtute capiatur; sed, sicut asserunt qui naturas animalium scripserunt, virgo puella praeponitur, quae venienti sinum aperit, in quo ille omni ferocitate deposita caput ponit, sicque soporatus velut inermis capitur."[1] It will now be shown that at least the second half of the story is an VIII. century interpolation.

Jerome remarks to Isai. XXXIV. 15, "illuc congregati sunt milvi, alter ad alterum: illuc congregari milvos, rapacissimam avem, quae Hebraice appellatur *dajoth*, sive ut LXX transtulerunt *cervos*."[2] The *ḍayyah* here mentioned is the kite, the smallest of the vulturine birds, known among the Arabs as the حدأة *ḥiḍa'ah*, about which Ad-Damīrī has the following story: "The relaters of narratives and the chroniclers of memorable events assert that it was one of the birds of prey in the possession of Sulaimān b. Dā'wūd, but that it is not now tamed or possessed (by any body), because it was a part of 'the kingdom which was not to be seemly to any one after him (Solomon).' The reason of this bird crying out at the time of treading is that a male bird (once) disacknowledged the young one which it had begotten by a female bird, so the latter said (to Solomon), 'O prophet of God, the male bird has trodden me, but after my hatching the egg and after my young one had come forth out of it, he has disacknowledged me.' Solomon said to the male bird, 'What dost thou say?' It replied, 'O prophet of God, she roams about in lands, and does not withhold herself from (other) birds, so I do not know if it is my young one or that of any other bird.' Solomon then ordered the young bird to be produced, and finding it resembling its male parent, handed it over to the male bird and said to the female bird, 'Never allow it to tread thee without getting other birds to bear witness against it, so that it may not deny it after that.' The female bird has therefore taken to crying out when the male treads it, and saying 'O birds, bear witness that he has trodden me.' The kite says in its cry, 'Everything is perishable but His face.'"[1] The significant points in this account are these: the kite lived in the palace of King Solomon; the male kite must be caught by a stratagem to acknowledge his fatherhood; the female kite is chaste and has witnesses to her marital faithfulness.

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[1] XII. 2. 12, 13.

[2] Migne, *P. L.*, vol. XXIV, col. 373.

In the Septuagint the kite is changed into ἔλαφος, a stag, but the stag, which goes to water, is caught with its horn in the forest; it is the τραγέλαφος, the *bos cervi figura* with one horn, with which we have already met. This demanded a transference of apparently a Talmudic story, to suit the Greek text. So the kite becomes the unicorn, "a small animal resembling a kid, μικρὸν ζῷόν ἐστιν, ὅμοιον ἐρίφῳ»,[2] which fits neither the kite nor the unicorn. Obviously there is something wrong here. The whole becomes clear from the Latin versions, one of which runs as follows: "Item est animal quod graece dicitur rinoceros, latine vero unicornis. Physiologus dicit unicornum hanc ejus naturam; pusillum animal est, simile hedo, acerrimum nimis, unum cornu habens in medio capite; et nullus omnino venatorum capere potest, hoc argumento capitur: Puellam virginem ducunt in loco illo ubi ipse moratur, et dimittunt eam in silva solam. Rinoceros vero, ut viderit illam, insilit in sinum virginis, et anplectitur eam, et sic capitur."[1]

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[1] *Op. cit.*, vol. I, p. 514 f.

[2] Lauchert, *op. cit.*, p. 254.

Here "simile *hedo*" is due to Arab. حداة *ḥiḍa'ah* "the kite." The Arabic version of the *Physiologus* story deals similarly with the unicorn, but it is called دي *ḍayyah*, as in the Bible, and this is the kite, and not the unicorn: "Est animal quod *ḍayyah* vocatur, valde modestum, quod non possunt venatores prehendere propter ejus robur; et est ei in medio capite cornu longum unum tantum."[2] But the transformation was made peremptory by the Septuagint version, where the *ḍayyah* is a stag. We find in the Syriac account of the unicorn the transitional stage, where the unicorn is identified with the stag, for here we read: "How is it caught? They send a chaste maiden to the place where it is wont to go to drink water."[3] Just as the stag of the Esopic fable goes to water, so does here the unicorn. And just as the ἔλαφος was merged into the τϱαγέλαφος and the "bos cervi figura" with one horn, so the *ḍayyah* ultimately became the unicorn.

The "bos cervi figura" comes itself from this unicorn story, for one Latin version has it. "Et in Deuteronomio, Josue benedicens tribum Joseph: Primitivos tauri species ejus, cornua ejus tamquam cornua unicornis. Quod autem unum cornu habet in capite, significat hoc quod dicit Salvator: Ego et Pater unum sumus."[1] The "tauri species ejus" was wrongly identified with the unicorn, "quod autem unum cornu habet in capite." It can now be seen that the "bos cervi figura" of Caesar is a bold interpolation, which could have come only from the *Physiologus*, that is, not earlier than in the VIII. century. When the *ḍayyah* was transformed into a unicorn, the virtuous female kite became a chaste maiden who assuages the beast, which is captured and brought to the king's court, even as the female kite went to Solomon to get justice.

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[1] Cahier, *op. cit.*, vol. II, p. 221 f.
[2] Land, *op. cit.*, p. 146 f.
[3] Ahrens, *op. cit.*, p. 43.

The connection of the kite with the court and the identification of the unicorn with the stag that goes to water led at once to the Merovingian myth.[2] In Fredegar's *Chronicle* there is an account of the origin of the Merovingians: "Fertur, super litore maris aestatis tempore Chlodeo cum uxore resedens, meridiae uxor ad mare labandum vadens, bistea Neptuni Quinotauri similis eam adpetisset. Cumque in continuo aut a bistea aut a viro fuisset concepta, peperit filium nomen Meroveum, per co regis Francorum post vocantur Merohingii."[3] The unicorn which goes to water here becomes "bistea Neptuni Quinotauri similis," that is, the unicorn is turned into the narwhale, which in the Bundehesh is called *māhi ariz*, literally "the fish unicorn." That a corrupt form of the word, sounding something like *meroeus*, was known to the Arabs is proved by the presence of *ariz* of the Bundehesh in Arabic lore. Ad-Damīrī gives under حريش *ḥarīš* a version which is already under Christian influence and presupposes the existence of the *Physiologus:* "A certain speckled species of serpents, so al-Jawharī says. He states after this that it is also a certain beast having claws like those of a lion and a horn on its head and that the people call it الكركدن (*al-karkaḍḍan*—the rhinoceros). Abū-Ḥayyān at-Tawḥīdī states that it is a certain small animal of the size of a kid or lamb and very quiet, but it has such strength of body and swiftness of motion as to baffle a hunter; it has in the middle of its head a solid and straight horn with which it strikes all animals; nothing can subdue it. It is necessary to use a stratagem for seizing it, namely, to expose to its view a virgin young woman or a young girl, whom when it sees, it jumps into her arms as though intending to suck her milk, which is a natural mark of affection ingrained in its nature. When it jumps into her arms, it sucks her breasts, though there is no milk in them, with such a gusto that it is overpowered by intoxication like the intoxication from wine; while it is in that state, the hunter comes and ties it up firmly with a rope, itself being motionless on account of this dodge. Al-Kazwīnī states in *al-Ashkāl* that *al-ḥarīsh* is a certain beast of the size of a kid or lamb, possessing great power of running and having on its head a horn like that of the rhinoceros; it runs mostly on its two hind legs, and nothing can overtake it in running; it is found in the forests of Bulgaria and Sijistān."[1]

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[1] Cahier, *op. cit.*, vol. II, p. 222.

[2] I already dealt with it in my *Contributions*, vol. III, p. 294 ff., to which I refer the reader. I repeat here only so much as is needed for the context.

[3] *MGH., Scrip. rer. merov.*, vol. II, p. 95.

The Merovingian myth is post-Arabic, and Fredegar's *Chronicle* is therefore of the VIII. century. We also have the *Physiologus* story of the unicorn in Gregory's *Moralia.* To Job XXXIX. 9, "numquid volet rhinoceros servire tibi?," Gregory says: "Per rhinocerotem intelligendi elati et

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[1] *Op. cit.,* vol. I, p. 525.

potentes a Christo domiti, et Ecclesiae servire coacti. Eorum superbiam miraculis fregit. Rhinoceros enim indomitae omnino naturae est; ita ut si quando captus fuerit, teneri nullatenus possit. Impatiens quippe, ut fertur, illico moritur. Ejus vero nomen Latina lingua interpretatum sonat, in nare cornu. Et quid aliud in nare nisi fatuitas, quid in cornu nisi elatio designatur? Nam quia in nare fatuitas solet intelligi, Salomone attestante didicimus, qui ait: Circulus aureus in naribus suis, mulier pulchra et fatua. Haereticam namque doctrinam nitore vidit eloquii resplendere, nec tamen sapientiae apto intellectu congruere, et ait: Circulus aureus in naribus suis, id est pulchra et circumflexa locutio in sensibus mentis stultae, cui ex eloquio aurum pendet, sed tamen ex terrenae intentionis pondere, more suis, ad superiora non respicit. Quod secutus exposuit, dicens: Mulier pulchra et fatua; id est, doctrina haeretica; pulchra per verbum, fatua per intellectum. In cornu vero, quia elatio frequenter accipitur, Propheta attestante didicimus, qui ait: Dixi iniquis, nolite inique agere, et delinquentibus, nolite exaltare cornu. Quid ergo in rhinocerote hoc nisi potentes hujus saeculi designantur, vel ipsae in eo summae principatuum potestates, qui typho fatuae jactationis elati, dum falsis exterius inflantur honoribus, veris miseriis intus inanescunt? Quibus bene dicitur: Quid superbis, terra et cinis? In ipsis vero initiis nascentis Ecclesiae, dum contra illam divitum se potestas extolleret, atque in ejus necem immensitate tantae crudelitatis anhelaret, dum tot cruciatibus anxia, tot persecutionibus pressa succumberet, quis tunc credere potuit quod illa recta et aspera superborum colla sibi subjiceret, et jugo sancti timoris edomita, mitibus fidei loris ligaret? Diu quippe in exordiis

suis rhinocerotis hujus cornu ventilata, et quasi funditus interimenda percussa est. Sed divina gratia dispensante, et illa moriendo vivificata convaluit, et cornu suum rhinoceros iste feriendo lassatus inclinavit; quodque impossibile hominibus fuit, Deo difficile non fuit, qui potestates hujus mundi rigidas non verbis, sed miraculis fregit. Ecce enim quotidie servire rhinocerotes agnoscimus, dum potentes mundi hujus, qui in viribus suis fatua dudum fuerant elatione confisi, Deo subditos jam videmus. Quasi de quodam indomito rhinocerote Dominus loquebatur, cum diceret: Dives difficile intrabit in regnum coelorum. Cui cum responsum esset: Et quis poterit salvus fieri? Illico adjunxit: Apud homines hoc impossibile est, apud Deum autem omnia possibilia sunt. Ac si diceret: Rhinoceros iste humanis viribus mansuescere non potest, sed tamen divinis subdi miraculis potest."[1]

There can be little doubt that here we have Gregory's genuine writing. Everything is in keeping with the conception of the rhinoceros as found in St. Augustine and the other patristic writers previous to Gregory. According to this account, the rhinoceros cannot be held if caught, because it dies on the spot. Only God can tame him. Had Gregory known anything about taming the rhinoceros by means of a chaste virgin, he could not have failed to mention it here, and he could not have said that only God can tame it. And yet he repeats the same idea a little further on, in commenting upon verse 10, "Nunquid alligabis rhinocerotem ad arandum loro tuo?": "Saeculi principes divina praecepta quibus alligantur, praedicant et servari curant. Lora sunt Ecclesiae praecepta disciplinae. Arare vero est per praedicationis studium humani pectoris terram vomere linguae pro-scindere. Hic igitur rhinoceros quondam superbus ac rigidus jam nunc loris fidei tenetur ligatus; atque a praesepi ad arandum ducitur, quia eam praedicationem qua ipse refectus est innotescere et aliis conatur. Scimus enim rhinoceros iste, terrenus videlicet princeps, quanta prius contra Dominum crudelitate saevierit, et nunc agente Domino cernimus quanta se ei humilitate substernit. Hic rhinoceros non solum ligatus, sed etiam ad arandum ligatus est, quia videlicet disciplinae loris astrictus, non solum se a pravis operibus retinet, sed etiam in sanctae fidei praedicationibus exercet. Ecce enim, sicut superius dictum est, ipsos humanarum rerum rectores ac principes dum metuere Deum in suis actionibus cernimus, quid aliud quam loris ligatos videmus? Cum vero eam fidem, quam dudum persequendo impugnaverant, nunc prolatis legibus praedicare non cessant, quid aliud faciunt, nisi aratri laboribus insudant?"[1]

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[1] Migne, *P. L.*, vol. LXXVI, col. 571 ff.

The commentary goes on to verse 18, when, as is sometimes the case in the *Moralia*, we are brought a considerable distance, this time back to verse 9. We get the reference to verse 19, "Sequitur nunquid praebebis equo fortitudinem, aut circumdabis collo ejus hinnitum?," but, instead of a discussion of this, we have the following apology: "Sed fortasse prius quam hujus equi fortitudinem hinnitumque disseramus, ab aliquibus quaeritur ut aliter etiam moralitate postposita, et rhinocerotis virtus, et struthionis hujus fatuitas exponatur. Manua quippe est verbum Dei, et quidquid bene voluntas suscipientis appetit, hoc profecto in ore comedentis sapit. Terra est verbum Dei, quam quanto labor inquirentis exigit, tanto largius fructum reddit. Debet ergo intellectus sacri eloquii multiplici inquisitione ventilari, quia et terra, quae saepius arando vertitur, ad frugem

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[1] *Ibid.*, col. 574.

uberius aptatur. Quae igitur et aliter de rhinocerothe ac struthione sentimus, sub brevitate perstringimus, quia ad ea quae obligatiora sunt, enodanda properamus. Rhinoceros iste, qui etiam monoceros in Graecis exemplaribus nominatur, tantae esse fortitudinis dicitur, ut nulla venantium virtute capiatur; sed sicut hi asserunt, qui describendis naturis animalium laboriosa investigatione sudaverunt, virgo ei puella proponitur, quae ad se venienti sinum aperit, in quo ille omni ferocitate postposito caput deponit, sicque ab eis a quibus capi quaeritur, repente velut inermis invenitur. Buxei quoque coloris esse describitur, qui etiam cum elephantis quando certamen aggreditur, eo cornu quod in nare singulariter gestat, ventrem adversantium ferire perhibetur, ut cum ea quae molliora sunt vulnerat, impugnantes se facile sternat. Potest ergo per hunc rhinocerotem, vel certe monocerotem, scilicet unicornem, ille populus intelligi qui dum de accepta lege non opera, sed solam inter cunctos homines elationem sumpsit, quasi inter caeteras bestias cornu singulare gestavit. Unde passionem suam Dominus, Propheta canente, pronuntians, ait: Libera me de ore leonis, et de cornibus unicornium humilitatem meam. Tot quippe in illa gente unicornes, vel certe rhinocerotes exstiterunt, quod contra praedicamenta veritatis de legis operibus, singulari et fatua elatione confisi sunt."[1]

It is quite impossible for Gregory to have said that those who have labored greatly in the investigation of the nature of the animals have declared that a chaste maiden is put in his way and that she opens to him her bosom, in which he lays down his head and thus is suddenly found harmless by those who want to catch him. Gregory told us before that the animal can never be tamed, except by God. But the editor or interpola-

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[1] *Ibid.*, col. 589 f.

tor of the *Moralia*, in the VIII. century, had another version of the rhinoceros story, and so he had to add an apology before introducing it. Then follows the version which is not Gregory's: "Nunquid volet rhinoceros servire tibi? Ex Judaeis ferox, Saulus a Christo domitus. Ac si aperitus dicatur: Nunquid illum populum, quem superbire in nece fidelium stulta sua elatione consideras, sub jure tuae praedicationis inclinas? Subaudis ut ego, qui et contra me illum singulari cornu extolli conspicio, et tamen mihi cum voluero protinus subdo. Sed hoc melius ostendimus, si de genere ad speciem transeamus. Ille ergo ex hoc populo et prius in superbia, et postmodum praecipuus testis in humilitate nobis ad medium Paulus ducatur, qui dum contra Deum se quasi de custodia legis nesciens extulit, cornu in nare gestavit. Unde et hoc ipsum naris cornu per humilitatem postmodum inclinans, dicit: Qui prius fui blasphemus, et persecutor, et contumeliosus; sed misericordiam consecutus sum, quia ignorans feci. In nare cornu gestabat, qui placiturum se Deo de crudelitate confidebat, sicut ipse postmodum semetipsum redarguens dicit: Et proficiebam in Judaismo supra multos coaetaneos meos in genere meo, abundantius aemulator existens paternarum mearum traditionum. Hujus autem rhinocerotis fortitudinem omnis venator extimuit, quia Saulis saevitiam unusquisque praedicator expavit. Scriptum namque est: Saulus adhuc spirans minarum et caedis in discipulos Domini, accessit ad principem sacerdotum, et petiit ab eo epistolas in Damascum ad synagogas, ut si quos invenisset hujus viae viros ac mulieres, vinctos perduceret in Jeru-

salem. Cum flatus nare reddendus trahitur, spiratio vocatur, et illud saepe per odorem nare deprehendimus, quod oculis non videmus. Rhinoceros ergo iste nare gestabat cornu quo percuteret, quia minarum et caedis in Domini discipulos spirans, postquam praesentes interfecerat, absentes quaerebat. Sed ecce omnis ante illum venator absconditur, id est omnis homo rationale sapiens opinione timoris ejus effugatur. Ut ergo hunc rhinocerotem capiat, sinum suum virgo, id est secretum suum ipsa per se inviolata in carne Dei sapientia expandat. Scriptum quippe est quod cum Damascum pergeret, subito circumfulsit illum die media lux de coelo, et vox facta est, dicens: Saule, Saule, quid me persequeris? Qui prostratus in terra respondit: Quis es, Domine? Cui illico dicitur: Ego sum Jesus Nazarenus, quem tu persequeris. Virgo nimirum rhinoceroti sinum suum aperuit, cum Saulo incorrupta Dei sapientia incarnationis suae mysterium de coelo loquendo patefecit; et fortitudinem suam rhinoceros perdidit, quia prostratus humi, omne quod superbum tumebat amisit. Qui dum, sublato oculorum lumine, manu ad Ananiam ducitur, patet jam rhinoceros iste, quibus Dei loris astringitur, quia videlicet uno in tempore caecitate, praedicatione, baptismate ligatur. Qui etiam ad Dei praesaepe moratus est, quia ruminare verba Evangelii dedignatus non est. Ait enim: Ascendi Jerosolymam cum Barnaba, assumpto et Tito. Ascendi autem secundum revelationem, et contuli cum illis Evangelium. Et qui prius jejunus audierat: Durum est tibi contra stimulum calcitrare: mira postmodum virtute praesidentis pressus, ex verbi pabulo vires obtinuit, et calcem superbiae amisit. Iste rhinoceros ad agrum dominicum arandum ligatus. Loris quoque Dei non tantum a feritate restringitur, sed quod magis sit mirabile, ad arandum

ligatur, ut non solum homines crudelitatis cornu non impetat, sed eorum etiam refectioni serviens, aratrum praedicationis trahat. Ipse quippe de evangelizantibus quasi de arantibus dicit: Debet enim in spe qui arat arare; et qui triturat, in spe fructus percipiendi. Qui igitur tormenta prius fidelibus irrogaverat, et pro fide postmodum flagella libenter portat, qui scriptis etiam epistolis humilis ac despectus praedicat, quod dudum terribilis impugnabat; profecto bene ligatus sub aratro desudat ad segetem, qui vivebat in campo male liber a timore."[1]

The exposition of the harnessing of the rhinoceros to the plow is practically identical with the previous version, except that it is by another hand. It would have been absurd for Gregory to repeat himself in this manner. The editor, however, could do no better than weld the two versions together by means of the apology. One need only compare the two versions of the ostrich eggs, in order to convince oneself that the ill-disguised borrowing of the second from the first cannot have proceeded from Gregory, who had no reason to repeat himself. What really seems to have happened is this. As a rule the allegorical explanation follows the moral exegesis of a Bible quotation. In this particular case there was no allegorical part for the verses 9–18. This was supplied by someone in the VIII. century who knew the *Physiologus*, and the VIII. century editor of the *Moralia* added what to him seemed to be written as an improvement on Gregory, and himself supplied the apology for doing so, quite unaware of the contradiction in the nature of the unicorn which he thus created.

As a matter of fact, the story of the unicorn is more complicated than so far shown. From the story of the kite only the reference to حداة *hedus* and the presence at the court are all that definitely belong to the Arabic prototype. The rest is all due to a misunderstanding of the Esopic stag story in a Latin translation. We have already observed that the stag's horn getting caught in the branches gave rise to the one horn of the *autolops*. The *autolops*, after drinking from the Euphrates, goes into the woods and there plays with the branches, *virgae*, when he is caught and trapped by the hunters. The *Physiologus* or its source read *virgo*, instead of *virgae*, and thus produced the story of the unicorn which plays with its horn in the bosom of the *virgo*, maiden, and thus is caught. This, then, shows beyond a chance of doubt, that the unicorn story arose only after the Arabs came in contact with Latin, which was after 711, and thus the earliest date of the *Physiologus* is established.[1]

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[1] *Ibid.*, col. 590 f.

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[1] For the story of the narwhale see my *Contributions*, vol. III, p. 295 f.

XXI. THE LION.

St. Augustine, in his *Quaestiones de Genesi*, did not discuss that part of Chap. XLIX which dealt with the Benediction of the Patriarchs, and confined himself merely to the statement: "Quod ita benedicit nepotes suos Israhel, ut dexteram manum minori inponat, maiori autem sinistram, et hoc filio suo Ioseph uolenti corrigere quasi errantem atque nescientem ita respondet: scio, fili, scio; et hic erit in populum, et hic exaltabitur. Sed frater eius iunior maior illo erit et semen eius erit in multitudine gentium, hactenus de Christo accipiendum est, quatenus etiam de ipso Iacob et fratre eius dictum est quia maior seruiet minori. Secundum hoc enim significauit aliquid prophetice hoc faciendo Israhel, quod populus posterior per Christum futurus generatione spiritali superaturus erat populum priorem de carnali patrum generatione gloriantem."[1] But in his *Contra Faustum* he elaborated upon the Benediction of Judah, because this gave him an opportunity for an allegorical interpretation as to the coming of Christ. However, this passage is not so much an original exposition of Augustine's, as a free restatement of Ambrose's elaborate account of the same event in his *De patriarchis*, as may be seen from a comparison of the two.

Ambrose, *De Patriarchis*, chap. IV.

"Et quia per admixtionem generis Iuda et Leui tribus iunctae sunt, ideo Matthaeus ex tribu Iuda

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[1] *Quaestionum in Heptateuchum libri VII*, in *CSEL.*, vol. XXVIII^{3}, p. 86 f.

discribit eius familiam. Et apostolus ait: quoniam de Iuda ortus est dominus noster, ut ex tribu Leui sacerdotalis et plena sanctitatis adnumeretur hereditas, ex tribu autem Iuda, ex qua Dauid et Solomon et reliqui reges fuerunt, regalis successionis splendor effulgeat, ut idem rex et sacerdos scripturarum testimonio demonstretur. Meritoque se circa gratiam Iudae Iacob sanctus effudit dicens: Iuda, te laudabunt fratres tui; manus tuae super dorsum inimicorum tuorum, adorabunt te filii patris tui. Catulus leonis Iuda. Ex germine, fili, mihi ascendisti. Recumbens dormisti ut leo et tamquam catulus: quis suscitabit eum? Non deerit iudex ex Iuda et princeps de femoribus eius, donec uenit cui repositum est, et ipse exspectatio gentium: alligans ad uitem asinam suam et cilicio pullum asinae suae lauabit in uino stolam suam et in sanguine uuae anaboladium suum: hilares oculi eius a uino et dentes candidiores quam lac. Ad Iudam quidem patriarcham dirigi uidetur alloquium, sed Iuda ille posterior uerus confessor exprimitur, qui ex ea tribu natus est, qui solus laudatur a fratribus, de quibus dicit: narrabo nomen tuum fratribus meis, dominus per naturam, frater per gratiam, cuius manus, quas expandit ad populum non credentem, super dorsum inimicorum. Isdem enim manibus atque eadem passione suos texit et subiugauit aduersarias potestates omnesque fidei et pietatis exortes subditos sibi fecit. De quibus ait pater ad filium: et dominaberis in medio inimicorum tuorum. Quos inimicos sua fecit malitia, non Christi uoluntas. In quo magna gratia domini. Etenim spiritales nequitiae, quae ante ceruicem nostram iugo solebant captiuitatis inflectere, ita ut Dauid ipse manus quodammodo super se triumphantium sentire se scriberet dicens: super dorsum meum fabricauerunt peccatores, ipsae nunc subditae Christi triumpho et quibusdam manibus eius, id est factis operibusque subiectae perpetuae subeunt captiuitatis aerumnam. Ipse est utique, qui adoratur a filiis patris sui, quando adoratur a nobis, quibus ipse permisit ut patrem uocemus, cuius seruum esse uirtutis est.

"Catulus leonis Iuda. Nonne euidenter et patrem expressit et filium declarauit? Quid tam euidens, quo unius naturae filius deus cum patre esse doceatur? Leo ille, hic catulus leonis. Uili conparatione eiusdem naturae aut potentiae unitas intellegitur. Rex ex rege processit, fortis ex forte. Quia futuros praeuidebat qui filium adsererent iunioris aetatis, occurrit his subiciens: ex germine mihi ascendisti. Recumbens dormisti ut leo et tamquam catulus. Et alibi habes quia catulus ipse est leo de tribu Iuda. Ergo quia catulum dixerat, bene statim leonem posuit, hoc est dicere: non capiantur aures uestrae, quia catulum audierunt; filium expressi, non dixi minorem. Et ipse est leo sicut pater. Audiant quia et leonem et catulum appellauit, leonem quasi perfectae plenaeque uirtutis, catulum quasi filium, ne quis cum audiret, aequalem patris non putaret filium. Non sic laudatur filius, ut separetur a patre. Ille probat aequalem qui filium confitetur. Mirifice autem et incarnationem eius expressit dicens: ex germine mihi ascendisti, eo quod tamquam frutex terrae in aluo uirginis germinauerit et ut flos boni odoris ad redemptionem mundi totius maternis uisceribus splendore nouae lucis emissus ascenderit, sicut Esaias dicit: exiet uirga ex radice Iessae et flos ex radice ascendet. Radix familia Iudaeorum, uirga Maria, flos Mariae Christus. Recte uirga, quae regalis est generis de domo et patria Dauid, cuius flos Christus est, qui faetorem mundanae conluuionis aboleuit, odorem uitae infudit aeternae. Habes ergo incarnationem, accipe passionem. Recumbens inquit dormisti ut leo, quando iacuit in sepulchro uelut quodam corporis sui somno quietus, sicut ipse ait: ego dormiui et requieui et surrexi, quoniam dominus suscipiet me. Unde et Iacob ait: quis suscitabit eum? Hoc est: quem dominus suscipiet. Quis est alius qui resuscitet, nisi ipse se sua patrisque resuscitet potestate? Uideo natum auctoritate propria, uideo mortuum propria uoluntate, uideo dormientem potestate propria. Qui omnia suo fecit arbitrio cuius alterius ut resurgat egebit auxiliis? Ipse igitur resurrectionis suae auctor est, qui mortis est arbiter, qui expectatur a gentibus. Ideo, donec ille ueniat, non deficiet dux ex Iuda. Ut usque ad eius ortum regalis successionis fides incorrupta seruetur. Postea enim, ut docuimus tractatu habito in euangelium, per Herodem adulterata successio praerogatiuam dignitatis amisit. Etenim quia uerum regem negarunt, falsos habere coeperunt. Ergo hoc dicit patriarcha: seruabitur in iudicibus uel regibus Iudaeorum intemeratae successionis hereditas ducta per reges, donec ueniat cui repositum est, ut ecclesiam dei congreget ex conuentu nationum omnium et gentilium deuotione populorum, hoc est ipsum manet, ipsi debitum reseruatur, ipsi tantae gratiae praerogatiua defertur.

"Et ipse est expectatio gentium. Plus dixit quam si dixisset: ipsum expectant gentes, quod omnis spes ecclesiae in ipso recumbat. Ideo dicitur Moysi: solue calciamentum pedum tuorum, ne ipse sponsus ecclesiae crederetur, qui dux plebis eligebatur. Ideo soluit calciamentum suum Iesus Naue, ut uenturo tanti muneris gratiam et ipse seruaret. Ideo dicit Iohannes: post me uenit uir, cuius non sum dignus soluere corrigiam calciamenti eius, ideo dicit: qui habet sponsam sponsus est; amicus autem sponsi, qui stat et audit eum, gaudio gaudet, hoc est: ipse est solus uir ecclesiae, hic est expectatio gentium, huic deferentes copulam gratiae nuptialis calciamentum suum soluerunt prophetae. Hic sponsus est, ego sponsi amicus: gaudeo, quia uenit, quia uocem audio nuptialem, quia iam non dura peccatorum supplicia, dura legis tormenta, sed remissionem criminum, uocem laetitiae, sonum iucunditatis, exultationem festi nuptialis audimus. Hic est ille alligans ad uitem asinum suum et cilicio pullum asinae suae, ut feruorem spiritus sancti congregatio habeat nationum ante remissa et neglegens, set iam deuota per Christum et uiti illi perpetuae, hoc est domino Iesu, qui ait: ego sum uitis, pater meus agricola, uelut fructuosi palmitis quibusdam inexsolubilis fidei uinculis alligemur. Hoc est illud mysterium, quod pullum asinae solui iussit in euangelio et ipse dominus Iesus sedit eum, ut alligatus ad uitem perpetua sanctorum suauitate requiesceret.

"Lauabit inquit in uino stolam suam. Bona stola est caro Christi, quae omnium peccata operuit, omnium delicta suscepit, omnium texit errores, bona stola, quae uniuersos induit ueste iucunditatis. Lauit hanc stolam in uino, quando cum baptizaretur in Iordane, descendit spiritus sanctus sicut columba et mansit super eum, quo significatur quod plenitudo spiritus sancti indiuidua in eo fuerit nec recesserit.

Unde et euangelista ait quia plenus spiritu sancto dominus Iesus regressus est ab Iordane. Lauit ergo Iesus stolam suam, non ut suam quae non erat, sed ut nostram quae erat sordem ablueret. Denique addidit: et in sanguine uuae anaboladium suum, hoc est in passione corporis sui diluit gentes suo sanguine. Etenim uerbi·anaboladium gentes sunt, sicut scriptum est: uiuo ego, dicit dominus, nisi omnes eos induam sicut uestimentum et alibi: sicut amictum mutabis eos, et mutabuntur. Non ergo sanguine proprio sua peccata quae non erant, sed nostra quae fecimus delicta mundauit. Et bene uuam dixit, quia sicut uua pependit in ligno. Ipse est uitis, ipse uua: uitis ligno adhaerens, uua, quia lancea militis apertum latus emisit aquam et sanguinem. Sic enim dixit Iohannes quia exiuit de eo aqua et sanguis, aqua ad lauacrum, sanguis ad pretium. Aqua nos abluit, sanguis nos redemit. Et ideo ait propheta: hilares oculi eius a uino et dentes candidiores quam lac significans prophetas et apostolos. Alii enim sicut oculi Christi praeuiderunt et adnuntiauerunt eius aduentum, de quibus ipse dicit: Abraham diem meum uidit et gauisus est, et unus de prophetis dicit: uidi dominum Sabaoth, quem uidentes spiritali laetitia conplebantur: alii uero, hoc est apostoli, quos dominus ab omni peccatorum labe mundauit, candidiores super lac facti sunt, quos macula postea nulla fuscauit. Etenim lac temporale est, gratia autem apostolorum perpetua manet, qui nobis spiritalia illa atque caelestia conficientes alimenta mentis internae uiscera saginarunt. Sunt etiam qui mandata domini lucida, quae diuino ore deprompta sunt, sicut lac nobis facta arbitrentur, quibus nutriti ad panis caelestis peruenimus alimoniam.

Unde et Paulus ait: lacte uobis potum dedi, non escam; nondum enim poteratis. Corinthius in principio fidei potu lactis inbuitur, sancti illi quorum fides adnuntiatur in uniuerso mundo tamquam ablactati esca solidiore firmantur."[1]

Augustine, *Contra Faustum*, lib. XII, cap. 42.

"Uellem scire, immo melius nescierim, qua caécitate animi legerit Faustus, ubi uocauit Iacob filios suos et dixit: congregamini, ut nuntiem uobis, quae occursura sunt uobis in nouissimis diebus; congregamini et audite, filii Iacob; audite, Israhel, patrem uestrum. Hic certe nemo dubitat prophetantis personam esse dilucidatam. Audiamus ergo, quid dicat filio suo Iudae, de cuius tribu Christus uenit ex semine Dauid secundum carnem. Sicut apostolica doctrina testatur. Iuda, inquit, te laudent fratres tui; manus tuae super dorsa inimicorum tuorum, adorabunt te filii patris tui. Catulus leonis Iuda, de germinatione filius meus, ascendisti recumbens, dormisti ut leo et ut catulus leonis, quis suscitabit eum? Non deerit princeps ex Iuda et dux de femoribus eius, donec ueniant quae reposita sunt ei; et ipse expectatio gentium alligans ad uineam pullum suum et cilicio pullum asinae; lauabit in uino stolam suam et in sanguine uuae amictum suum; fulgentes oculi eius a uino et dentes candidiores lacte. Falsa sint ista, obscura sint ista, si non in Christo euidentissima luce claruerunt, si non eum laudant fratres eius apostoli et omnes coheredes eius, non suam gloriam quaerentes, sed ipsius; si non sunt manus eius super dorsa inimicorum eius; si non deprimuntur atque curuantur ad terram crescentibus populis christianis, quicumque illi adhuc aduersantur; si non eum adorauerunt filii Iacob in reliquiis, quae per electionem gratiae saluae factae sunt; si non ipse catulus est leonis, quoniam nascendo paruulus factus est—propter hoc additum: de germinatione filius meus. Causa quippe reddita est, quare catulus, in cuius laude alibi scriptum est: catulus leonis fortior iumentis, hoc est etiam paruulus fortior maioribus—si non ascendit in cruce recumbens, cum inclinato capite reddidit spiritum; si non dormiuit ut leo, quia et in ipsa morte non est uictus, sed uicit, et ut catulus leonis—inde enim mortuus unde et natus—si non ille eum suscitauit a mortuis, quem nemo hominum uidit nec uidere potest—eo enim, quod dictum est: quis suscitabit eum? Satis expressa est tamquam ignoti significatio—si defuit princeps ex Iuda et dux ex femoribus eius, donec uenirent oportuno tempore, quae promissa tamquam reposita fuerant. Sunt enim litterae certissimae historiae ipsorum quoque Iudaeorum, quibus ostenditur primum alienigenam Herodem regem fuisse in gente Iudaeorum, quo tempore natus Christus est. Ita non defuit rex de semine Iuda, donec uenirent, quae reposita erant illi. Sed quia non solis Iudaeis fidelibus profuit, quod promissum est, uide, quid sequatur: et ipse expectatio gentium; ipse alligauit ad uineam pullum suum, id est populum suum in cilicio praedicans et clamans: agite paenitentiam; adpropinquauit enim regnum caelorum. Populum autem gentium illi subditum cognoscimus pullo asinae conparatum, in quo etiam sedit ducens

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[1] *CSEL.*, vol. XXXII², pp. 133–139.

eum in Hierusalem, id est in uisionem pacis, docens mansuetos uias suas. Si non lauat in uino stolam suam: ipsa est enim gloriosa ecclesia, quam sibi exhibet non habentem maculam aut rugam; cui dicitur etiam per Esaiam: si fuerint peccata uestra sicut phoenicium, tamquam niuem dealbabo. Unde nisi de dimissis peccatis? In quo ergo uino nisi illo, de quo dicitur, quod pro multis effundetur in remissionem peccatorum? Ipse est enim botrus ille, qui pependit in ligno. Propterea et hic uide, quid adiungat: et in sanguine uuae amictum suum. Iam uero fulgere oculos eius a uino, illa in corpore eius membra cognoscunt, quibus donatum est sancta quadam ebrietate alienatae mentis ab infra labentibus temporalibus aeternam lucem sapientiae contueri. Unde quiddam paulo ante commemorauimus dicente Paulo: siue enim mente excessimus, deo. Hi sunt fulgentes oculi a uino. Sed tamen quia sequitur: siue temperantes sumus, uobis, nec paruuli relinquuntur adhuc lacte nutriendi, quia et hic sequitur: et dentes candidiores lacte."[1]

That the second is based on the first follows from Augustine's crabbed references to the lion and the lion cub, which cannot be understood without Ambrose's explanation. Ambrose says that the juxtaposition of the lion and the cub is due to this, that both the Father and the Son are designated, "the lion representing perfect and full Virtue, the cub, the Son, lest one hearing this should understand the Son not to be equal to the Father." "Recumbens dormisti ut leo" is explained by him allegorically as referring to Christ sleeping in the tomb, while "quis suscitabit eum?" is similarly made to refer to Christ, Who

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[1] *CSEL.*, vol. XXV, pp. 367–370.

"was born, died and slept of His own free will and is the author of His own resurrection, even as He is the arbiter of His own death."

All the commentaries that deal with the Benediction, whether before or after the writing of Ambrose's disquisition, have understood the allegory of the lion and the cub in a similar manner. Jerome did not even discuss the matter, being satisfied with the statement, "licet de Christo grande mysterium sit, tamen juxta litteram prophetatur, quod reges ex Juda per David stirpem generentur, et quod adorent eum omnes tribus."[1] Cyril of Alexandria wrote: "Siquidem catulus leonis est Christus ex Juda, cum sit Filius Dei omnipotentis, qui et sine pugna vincit, et solo verbo potest perterrefacere eos qui ipsi resistunt, sicut propheta ait: Leo rugiet, et quis non timebit? Catulus itaque leonis est Christus, sicut et ex germine et nobili radice ortus est, ex sancta Virgine. . . . Recumbens dormivisti ut leo; hoc est, non praeter voluntatem sustinuisti mortem, sed, etiamsi omnibus ut leo pavorem incutere potes, et venatorum manus subterfugere, tua sponte te submisisti: neque ut ii qui te crucifixerunt cogitabant, mortis vinculis detentus; sed veluti somno usus, atque exiguo temporis spatio occlusus fuisti. Quis igitur ipsum excitabit? inquit; quasi dicat: Decubuit quidem volens, ita tamen ut nullius opera indigeret ad resurgendum: quippe qui in se omne robur contineat, tanquam Dei Patris potentia: neque quidquam in ipso desideratur, quominus possit, et quidem facile admodum, suum ipsius templum vivificare. Idcirco dicebat ad Judaeos: Solvite templum hoc, et in tribus diebus excitabo illud."[1] Theodoret has similarly: "Decumbens dormisti ut leo, et velut catulus leonis. Quemadmodum enim leo etiam dormiens terribilis est: sic mors Domini formidabilis fuit et morti et diabolo. Leonem porro et catulum leonis ipsum vocavit, tanquam regem et regis filium, et tanquam Deum et Dei Filium. Nam et secundum humanitatem ex Davide ortus est, et tanquam Deus ante saecula ex Deo Patre genitus est. Hoc autem: Quis excitabit illum? ineffabilem ejus potentiam declarat. Ipse enim se suscitavit, secundum praedictionem suam: Solvite templum hoc, et in tribus diebus excitabo illud."[2] Most of the Commentary to Genesis of Procopius of Gaza has been preserved in a Latin translation. Here we read: "Ut appareat imperatoria dignitas, scribitur: Catulus leonis Juda. . . . Accubans ut leo dormivisti, etc., dicitur ob audaciam et animosos adversus hostem spiritus. Deinde significat tanta firmitate eum insedisse regio solio, quod haereditario jure sit adeptus, ut inde avelli et deturbari nequeat. Leonis nomen imponitur illi tribui, quod leo, si cubet, terribilior, propter pectoris amplitudinem, conspiciatur. Quapropter admiratur Judam, ut terribilem et fortem, quasi nemo facile inveniatur, qui ipsum sit excitaturus, et regio solio regiaque dignitate dejecturus. Hunc paulo post refert fore exspectationem gentium, qui non compariturus sit prius, quam defuerit princeps et dux in Israel. . . Siquidem Pater est in Filio, et in Filio Pater. Scriptura autem insuevit somnum appellare mortem. Verum per dictionem, accumbens, etc., significatur nobis voluntaria mors

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[1] *Liber hebraicarum quaestionum in Genesim,* in Migne, *P. L.*, vol. XXIII, col. 1006.

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[1] *Glaphyrorum in Genesim Lib. VII*, Migne, *P. G.*, vol. LXIX, col. 354. I shall generally quote the Latin translation, so as to furnish more easily comparisons with our Latin texts.

[2] *Quaestiones in Genesim, ibid.*, vol. LXXX, col. 218.

Christi. At Christus omnes, ceu leo fortis et vigens pollensque viribus quiverat devincere. Nec a morte detentus est, quemadmodum putaverunt illi, qui ipsum in crucem egerunt. Imo volens cubuit. Quemadmodum leo non solum vigilans, sed et dormiens terribilis est, sic Christus non ante crucem, sed etiam in cruce terribilis erat, magnaque designabat miracula: Non ait, dormies, etc., sed dormivisti. Tanta enim prophetiae est certitudo, ut illa, quae nondum facta sunt, effecta data praesumant sancti Dei homines, siquidem id, quod factum est, fieri infectum nequit. At Deo id quod futurum est, jam jam factum est, tempusque omne penes ipsum certum et praesens est. Huic affine est et illud Scripturae eloquium: Foderunt manus meas et pedes meos. Numeraverunt omnia ossa mea. Quod ait: Quis excitabit eum? mirabili modo significat resurrectionem, et eum, qui nos suscitat et provocat ad inquirendum Deum. Indicat quoque eum volentem cubuisse, nec indigere alterius auxilio. Pater namque suscitabit eum secundum Scripturam dicentem: Quem Pater suscitavit a mortuis. Ipse vero semetipsum excitavit, juxta id, quod dicit: Solvite templum hoc, et in tribus diebus suscitabo illud."[1]

In the whole range of genuine patristic literature there is not a suggestion of the extravagant story of the *Physiologus*, according to which the cub is born dead and is revived by the lion's breath on the third day. Epiphanius of Cyprus, who reveled in animal stories and who has been cited as an example of a fourth century author drawing on an ancient *Physiologus*,[2] knows absolutely nothing of such a story: "Leaenam

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[1] *Ibid.*, vol. LXXXVII^1, col. 496 ff.

[2] A. Karnyeev, *op. cit.*, p. 26.

itaque ferunt nonnisi semel parere, cujus rei hanc esse rationem: Quod animal istud voracissimum sit, colore fulvum, validissimo robore, atque, ut uno verbo dicam, regia quadam dignitate caeteris antecellat, porro ex uno conjuge concipiat fetumque sex et viginti totos menses in utero gerat: adeo ut ille prae longinquitate temporis adultus dentibus omnibus, atque unguibus cum justa corporis statura, praeditus sit, antequam in lucem prodeat; atque et claviculares, quos vocant, et caninos dentes ac molares habeat, et alia omnia, quae animali huic a natura concessa sunt. Dum igitur matris utero continetur, subsultando, movendoque sese, aut alio quovis modo matris uterum laniare unguibus ac discerpere narrant. Quare cum ad partum mater venerit, eadem illa die ab omni parturiendi conditione ac molestia ventrem illius liberari. Siquidem in ipso partu uterum simul ac matricem excerni naturalium rerum indagatores asserunt: adeo ut nulla in posterum veneris cupiditate tangatur, nisi aliqua vis adhibeatur. Quod si marem experiri cogatur, non amplius tamen fetum gestare posse, utpote quae matrice careat. Qua quidem ex narratione ad id, de quo agimus, similitudinem quamdam licet transferre, quae utilitatem potius quam damnum aliquod continere videatur. Etenim si catulum leonis Judam Jacob nominans, Christum quadam sermonis figura adumbravit, cum eoque illud ex Joannis Apocalypsi congruit: Ecce vicit leo de tribu Juda, et de stirpe David: cum leoni Dominus assimuletur, non natura quidem, sed similitudinis adumbrationisque gratia, quod regia quaedam insit in leone dignitas, sitque animalium omnium audacissimum, ac fortissimum, et in caeteris omnibus aspectu jucundissimum, non absurde matrem illius leaenam appellabimus. Qui enim leo generari potest, nisi mater ejus leaena nominetur? Caeterum uti leaena secundo non parit: ita sacrosancta

virgo Maria alterius partus expers fuit, ac nullum corporis commercium exercuit."[1] Ildefonsus, who lived after Isidore of Seville, and who is also cited as an example of an author who has drawn largely on the *Physiologus* in his chapters especially devoted to the animal allegories in his *Liber de itinere deserti*, and who should have known Isidore's allegorical reference to the lion, if this were genuine, simply says: "De significantia utriusque leonis. Saeviat licet leo, qui circuiens quaerit quem devoret, nobiscum tamen semper ille est ex tribu Juda victor leo, qui tam libenter nos de illo defendit quam illum ipse potentialiter vicit."[2]

Augustine wrote of the cub, "inde enim mortuus unde et natus," a clause which could not be understood without Ambrose's "video natum auctoritate propria, video mortuum propria voluntate, video dormientem potestate propria," of which it is an abbreviation. Augustine meant to say that the cub allegorizes the birth of Christ *of his own free will*, even as the lion allegorizes his death *of his own free will*, as is perfectly clear from the preceding reference to the lion as allegorizing Christ's invincibility in death. The unnatural history of the cub's birth and resurrection was as foreign to him as it was to the rest of the patristic writers. Indeed, in several of the patchwork Benedictions, ascribed to Jerome, Augustine, and Alcuin, and in reality composed after 600, in all probability considerably later, not a word is said about the allegory of the cub. Grial[3] has already shown that the expanded Benediction, ascribed to Isidore of Seville, is composed of bits of passages from Augustine, Jerome, and Gregory; but as he has also assumed a few passages to originate in Rufinus' *De benedictionibus patriarcharum* and has failed to identify other borrowings, I must reopen the subject.

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[1] *Adversus haereses*, Migne, *P. G.*, vol. XLII, col. 718.
[2] Migne, *P. L.*, vol. XCVI, col. 185.
[3] *Divi Isidori Hispalensis Episcopi Opera*, Madriti 1599.

In a letter to an unknown person, Alcuin refers to a disquisition of his upon the Benedictions of the Patriarchs: "De Benedictione Patriarcharum, de quibus rogare tibi quoque placuit, composui olim epistolam sub nomine tuo Samuelisque condiscipuli tui. Nescio si de ea postulasti, sive de quolibet alio auctore. De epistola interrogasti, quid esset? Nam ἐπὶ *super*, στόλα *habitus* Graece dicitur. Unde Adrianus imperator Epictetum philosophum inter alias inquisitiones interrogavit, quid esset *cinctum?* At ille videns eum epistolam manu tenentem, respondit: *Quod manu tenes.* Volens intelligere, quasi supercinctorium esset epistolae sigillum, quo a foris vestiatur chartula. Hanc habeto interpretationem, donec meliorem invenias vel veriorem."[1] The absurd etymology of *epistola* was apparently occasioned by "lavit in vinum *stolam* suam" of Genesis XLIX. 11, which is discussed in the Benediction of Judah. In any case, Alcuin's etymology should be kept in mind for the investigation of the genuineness of Rufinus' Benedictions. *De benedictionibus patriarcharum*, which most likely Alcuin sent to the recipient of the letter, is attached as Interrogatio 281 to Alcuin's *Interrogationes et responsiones in Genesim.* Only the Interrogatio and Responsio of the introduction and a few connecting clauses belong to Alcuin. The rest is chiefly a reproduction from Jerome's *Quaestiones in Genesim*, followed by a cento from Ambrose, Jerome, Augustine's *Contra Faustum* and *De civitate Dei*, and Gregory's *Moralia.*[2] With slight variations the cento is reproduced in a Benediction ascribed to Augustine and Jerome,[1] and, with certain additions, to Eucherius,[2] Isidore of Seville,[3] Bede,[4] Rabanus Maurus,[5] etc.

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[1] Migne, *P. L.*, vol. C, col. 460.

[2] See Migne, *P. L.*, vol. LXXXIII, col. 276 ff., notes.

Obviously the earliest author of the cento, which is a part of the whole commentary to Genesis, can only be Isidore, since Gregory's *Moralia* appeared during his lifetime. This is made a certainty, not only by Ildefonsus' words, "collegit etiam de diversis auctoribus quod ipse cognominat secretorum expositiones sacramentorum, quibus in unum congestis, idem liber dicitur Quaestionum,"[6] but also by the explicit statement of Isidore in the preface to the commentary, where he tells us, "has autem rerum gestarum figuras de mysticis thesauris sapientium, ut praediximus, depromentes, in unam formam compendio brevitatis contraximus; in quibus lector non nostra leget, sed veterum releget. Quod enim ego loquor, illi dicunt; et vox mea ipsorum est lingua. Sumpta itaque sunt ab auctoribus Origene, Victorino, Ambrosio, Hieronymo, Augustino, Fulgentio, Cassiano, ac nostri temporis insigniter eloquenti Gregorio."[7] The only question is whether the *De benedictionibus patriarcharum*, as found in Isidore, is the original, or an expanded version, made some time after Isidore's death. That the latter is the case is made certain by Alcuin's version, in which in the Benediction of Judah the story from the *Physiologus* is absent, whereas in Isidore it is clearly an insertion.

Requiescens accubuisti ut leo. Manifestissime Christus accubuit in passione, quando inclinato capite tradidit spiritum, sive quando in sepulcro [securus] velut quodam corporis somno quievit.

Recumbens dormisti, euangelista exponit, ubi dicit: et inclinato capite tradidit spiritum; aut certe sepultura eius agnoscitur, in qua recubuit dormiens, Augustine, *De civ. dei*, XVI. 41, *CSEL.*, vol. XL^2, p. 199.

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[1] *Ibid.*, vol. XXIII, col. 1307 ff.

[2] *Ibid.*, vol. L, col. 1038 ff.

[3] *Ibid.*, vol. LXXXIII, col. 276 ff.

[4] *Ibid.*, vol. XCI, col. 273 ff.

[5] *Ibid.*, vol. CVII, col. 655 ff.

[6] *Ibid.*, vol. LXXXIII, col. 207 f.

[7] *Ibid.*, col. 209.

Sed quare ut leo et [velut] catulus leonis? In somno suo leo fuit, quoniam non necessitate, sed potestate hoc ipsum implevit, sicut ipse dicit: Nemo tollet a me animam meam, sed ego ponam eam. Quod vero addidit: Et ut catulus leonis; inde enim mortuus est, unde [et] natus. Bene [ergo] Christus ut leo requievit, qui non solum mortis acerbitatem non timuit, sed etiam in ipsa morte mortis imperium vicit. Quod autem dicit: Quis suscitabit eum? Quid est aliud nisi quod ipse dicit: Solvite templum hoc, et in triduo suscitabo illud. Non deficiet dux de Juda [et reliqua]. Hoc manifestissime ad Judam refertur. Diu enim fuit ex semine illius intemerata apud Judaeos successio regni, donec Christus nasceretur, Alcuin, Migne, *P. L.*, vol. C, col. 563.

Ascendit in cruce recumbens, cum inclinato capite reddidit spiritum, Augustine, *Contra Faustum*, XII. 42, *CSEL.*, vol. XXV, p. 368.

Habes ergo incarnationem, accipe passionem. Recumbens inquit dormisti ut leo, quando iacuit in sepulchro uelut quodam corporis sui somno quietus, Ambrose, *De Patriarchis*, IV. 20, *CSEL.*, vol. XXXII^2, p. 135.

Mors Christi praedicta est uerbo dormitionis et non necessitas, sed potestas in morte nomine leonis. Quam potestatem in euangelio ipse praedicat dicens: Potestatem, etc., Augustine, *De civ. dei*, XVI. 41, *CSEL.*, vol. XL^2, p. 198.

Et ut catulus leonis— inde enim mortuus unde et natus, Augustine, *Contra Faustum*, XII. 42, *CSEL.*, vol. XXV, p. 369.

Non dormiuit ut leo, quia et in ipsa morte non est uictus, sed uicit, *ibid.*

Quis suscitabit eum? hoc est, quia nullus hominum, nisi se ipse, qui etiam de corpore suo dixit: Soluite templum hoc, et in triduo resuscitabo illud, Augustine, *De civ. dei*, XVI. 41, *CSEL.*, vol. XL^2, p. 199.

Ut usque ad eius ortum regalis successionis fides incorrupta seruetur. . Seruabitur in iudicibus uel regibus Iudaeorum intemeratae successionis hereditas ducta per reges, donec ueniat cui repositum est, Ambrose, *De Patriarchis*, IV. 21, *CSEL.*, vol. XXXII^2, p. 136.

Isidore's version reads: "Quod vero addidit, et ut catulus leonis, inde enim mortuus, unde et natus. Physici autem de catulo leonis scribunt, quod cum natus fuerit, tribus diebus et tribus noctibus dormit. Tunc deinde patris fremitu, vel rugitu, veluti tremefactus cubilis locus, suscitare dicitur catulum dormientem.

Quod valde convenienter de passionis morte aptatur in Christo, qui, tribus diebus et tribus noctibus in cubili sepulcri jacens, somnum mortis implevit. Bene ergo Christus, ut leo, requievit, qui non solum mortis acerbitatem non timuit, sed etiam in ipsa morte mortis imperium vicit. Bene idem iterum ut catulus leonis, quia die tertio resurrexit."[1] The insertion is found in Pseudo-Eucherius, etc., and is also given in Isidore's *Etymologiae*, XII. 2. 5: "Cum genuerint catulum, tribus diebus et tribus noctibus catulus dormire fertur; tunc deinde patris fremitu vel rugitu veluti tremefactus cubilis locus suscitare dicitur catulum dormientem." *Physici* is used in the *Etymologiae* in another place (VIII. 6. 4): "*physici* dicti, quia de naturis tractant; natura quippe Graece φύσις vocatur." The whole passage in Isidore is taken bodily out of Rufinus' *Benedictio Judae*, which reads as follows: "Sed multo convenientius aptabitur huic loco mystica expositio, in qua catulus leonis, Christus, non solum φυσιϰῶς, verumetiam τϱοπιϰῶς designatur. Nam Physiologus de catulo leonis haec scribit, Quod cum natus fuerit, tribus diebus ac tribus noctibus dormiat: tum deinde patris fremitu vel mugitu, tanquam tremefactus cubilis locus, suscitet catulum dormientem. . . . Recumbens dormisti ut leo, et sicut catulus leonis. Manifeste recubuisse et dormisse, dictum de passione mortis ostenditur. Sed videamus quare ut leo, et ut catulus leonis, dormit. De catuli quidem somno jam superius dictum est, quod valde convenienter adaptatur Christo, qui tribus diebus et tribus noctibus in corde terrae sepultus, somnum mortis implevit."[2] It will now be shown that this *Benedictio* of Rufinus is a forgery, written after Isidore's death, in fact, after 711, and that the entries in Isidore's works are interpolations.

[1] Migne, *P. L.*, vol. LXXXIII, col. 279.

[2] *Ibid.*, vol. XXI, col. 302.

We have but two references to Rufinus' *De benedictionibus patriarcharum.* In Gennadius[1] we read: "Disseruit et *Benedictionem Iacob super patriarchas* triplici, id est, historico, morali et mystico sensu." But since a number of chapters in Gennadius are now bracketed as of later origin, it is impossible to draw from the reference to Rufinus' work any conclusion as to its genuineness. The second time we find a chapter in *De viris illustribus liber*, ascribed to Isidore of Seville, which runs as follows: "Toranius Ruffinus scripsit ad quemdam Paulinum presbyterum de benedictionibus patriarcharum triplici intelligentia librum satis succinctum et clara brevitate compositum. Hic autem iuxta mysticum sensum ea, quae de Dan, filio Iacob, scripta sunt, non recte de Domino nostro interpretatur, dum proculdubio ad Antichristum eadem pertinere sanctorum Patrum probet assertio."[2] The genuineness of a number of chapters in this work, including the one on Rufinus, has long been doubted.[3] Działowski's defence of this work does not prevail over Ebert's assertion that there are interpolations in it.[4] Besides, the information in regard to the Benedictions is given in the identical words as in regard to a similar work ascribed by him to Paulinus.[5] Either one or both statements are interpolations.

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[1] *Liber de viris inlustribus*, ed. by E. C. Richardson, in *Texte und Untersuchungen zur Geschichte der altchristlichen Literatur*, vol. XIV, Leipzig 1896, p. 68.

[2] G. von Działowski, *Isidor und Ildefons als Litterarhistoriker*, Münster i. W. 1898, p. 11.

[3] *Ibid.*, p. 81 ff.

[4] A. Ebert, *Allgemeine Geschichte der Literatur des Mittelalters im Abendlande*, Leipzig 1889, vol. I, p. 601 f.

[5] "Paulinus presbyter explicuit in benedictionibus patriarcharum triplici intelligentiae genere librum, satis succincta brevitate compositum," *op. cit.*, p. 27.

We know of no triple interpretation of the Benedictions by Paulinus. There is only one work which is attributed to Paulinus of Milan,[1] and this has only two interpretations, the historical and the allegorical. This forgery is based entirely on Alcuin's version, of which it is a paraphrase and expansion. Alcuin says that the Benediction has both a historical and allegorical meaning, and that the allegory refers to what will happen in future time. "But first the historical foundation must be laid, so that the superstructure of allegory may safely rest upon it." Precisely the same is said by Paulinus.

Alcuin.	Paulinus.
Quid intelligendum est de benedictionibus quibus Jacob patriarcha benedixit filios suos: an historice vel allegorice intelligendae sunt, dum dixit: Congregamini filii Jacob [audite, Israel, patrem vestrum], ut annuntiem vobis quae ventura sunt in novissimis diebus; et videtur ex his verbis magis allegoriam sonare quam historiam?—Utrumque [vero] et historiam et allegoriam. Historiam, de divisione terrae promissionis, quae [divisiones] dividendae erant nepotibus illorum. Item allegoriam, de Christo et Ecclesia in novissimis quid futurum temporibus. Sed prius historiae fundamenta ponenda sunt, ut aptius allegoriae culmen priori structurae superponatur, Migne, *P. L.*, vol. C, col. 558 f.	Sacrosancta atque praesaga sanctorum Patriarcharum benedictio, quae per Spiritum sanctum atque os beati Jacobi singulis est competenti qualitate distributa, nec per omnia sensu litterario potest intelligi, maxime cum idem beatus Patriarcha dicat: Ut annuntiem vobis quae ventura sunt in novissimis diebus: nec ita extenuanda per sensum allegoricum, ut omnino evacuari debeat sensus historicus: quia et quaedam, uti post videbimus, sic eis praedicta sunt, ut quaedam in proximo, quaedam multo post venerint: tamen plura ex illis in finem futura servata sunt. Quae ergo historialiter in ipsis verbis intelligere possumus, primum, quasi fundamenta jaciendo, donante Domino, strictim pandamus: quae autem omnimodis litteram refugiunt, ea per spiritalem intelligentiam, sicut et spiritali sunt intellectu carpenda, discutiamus, Migne, *P. L.*, vol. XX, col. 715.

Alcuin treats all the Benedictions together, at first historically, then allegorically. Paulinus combines the two, but the matter is always the same. The allegorical interpretation of the Benediction of Ruben in both runs as follows:

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[1] Migne, *P. L.*, vol. XX, col. 715 ff.

Alcuin.	Paulinus.
Spiritualiter autem [in] Ruben prioris populi Judaeorum ostendit personam, cui a Domino per prophetam dicitur: Israel primogenitus meus. Etenim juxta quod primogenitis debebatur, ipsius erat accipere sacerdotium et regnum. Additur: Tu virtus mea. Utique quod huic populo fundamentum fidei ex ipsa virtute Dei, qui est Christus, advenit.	Typice autem Ruben iste primogenitus populum designat Judaicum, qui primogenitus fuit Dei, juxta illud quod de illo Dominus ad Moysem ait: Filius primogenitus meus Israel; et beatus Hieremias: Sanctus Israel Domino, primitiae frugum ejus. Qui fortitudo illius fuit, quando in Patriarchis et Prophetis, et caeteris quibuscumque fortissimis viris contra idolatriam, et vitiorum omnium impuram catervam fortiter dimicavit.
Quomodo autem ipse sit principium dolorum, nisi dum Patri Deo semper irrogat injurias, convertens ad eum dorsum [et] non faciem?	Qui tamen principium doloris ejus postea exstitit, quando adveniente Salvatore in incredulitate permanens doctrinam illius suscipere mente tumida recusavit. Unde Dominus videns civitatem Hierusalem, flevisse dicitur, et in Lazari resuscitatione pro ejus populi caecitate lacrymatus esse perhibetur.
Iste prior in donis, quia ipsi primum credita sunt eloquia Dei, et legislatio, et testamentum [sive promissio].	Cum autem dicitur prior in donis, ostenditur quidem praecessisse eumdem populum in muneribus a Deo collatis: subsecuturam vero gentium Ecclesiam, quae eisdem et multo potioribus esset donanda charismatibus.
Iste major imperio, utique pro magnitudine virium, quia copiosius caeteris in hoc saeculo regnavit.	Cum vero subjungitur major imperio, non mirum si honoretur eadem gens, quae prima credidit praerogativa patrum, quando beatus Paulus apostolus multum per omnem modum amplius esse Judaeo dicat.
Effusus est autem sicut aqua, peccando in Christo, quae vasculo non tenetur; voluntatis effusus est impetu: et idcirco addidit ultra non crescas. [Quia peccavit, et Christum negavit], quapropter ipse postquam in universum orbem dispersus est, valde imminutus est.	Addidit interea: Effusus es sicut aqua, effrenationem illius populi mente considerans, qui nequaquam vase legis ac praeceptorum divinorum coercitus est mensura; sed abjectis omnium praeceptorum Dei vinculis, in Salvatoris necem toto conatu locutionis suae rivos effudit. Nam quod per aquam locutio bona vel mala significetur, Scriptura testis est divina, quae in

	bono dicit: Aqua profunda verba ex ore viri; itemque in malo: Qui dimittit aquam, caput est jurgiorum. Quod vero subjungit: non crescas, ostendit eumdem populum, sicut et oculis cernimus, inter cunctas gentes paucissimo numero diminutum.
Sed quare talia meruit, ita subjecit: quia ascendisti cubile patris tui, et maculasti stratum ejus; quando corpus Dominicum, in quo plenitudo Divinitatis requiescebat, raptum in cruce suspendit, et ferro commaculavit, Migne, *P. L.*, vol. C, col. 562.	Quare autem ista perpessus sit, subjuncta verba testantur: Quia ascendisti cubile patris tui, et maculasti stratum ejus. Per cubile patris carnem Salvatoris insinuamus. Nec mirum. Cubile patris ejus gentes, et corpus dominicum intelligit, quia ab eodem idem populus creatus est: nam scriptum est de eo: Omnia per ipsum facta sunt. Per stratum vero idem corpus intelligitur, quod quasi a Judaeis maculatum est, quando eorum acclamatione Dominus et in cruce suspensus, et lancea transverberatus est, atque cruore proprio perfusus est, Migne, *P. L.*, vol. XX, col. 717 f.

The allegorical interpretation of Judah is the longest in Alcuin, hence we should expect here a full account of the lion's whelp awaking after three days, but it is precisely here that Paulinus has the extension. Alcuin follows St. Augustine closely, while Paulinus introduced the story from the *Physiologus*.

Alcuin.	Paulinus.
Juda te laudabunt fratres tui.	Juda, te laudabunt fratres tui: manus tuae in cervicibus inimicorum tuorum. Adorabunt te filii patris tui. His verbis modestia hujus viri secundum litteram pariter, et virium copia demonstratur: quia videlicet ea civiliter tractando cum fratribus, et modestia visus est, ut a cunctis laude dignus haberetur: quod difficile est; inter tot scilicet fratres omnium animos habere conciliatos. Sed et fortitudine adeo abundavit,

Per hunc Judam verus confessor exprimitur Christus, qui ex ejus tribu secundum carnem est genitus.

Ipsum laudant fratres sui, apostoli scilicet et omnes cohaeredes ejus, qui per adoptionem Filii Dei Patris et Christi fratres effecti sunt per gratiam, quorum ipse est Dominus per naturam.

Manus tuae in cervicibus inimicorum tuorum. Iisdem enim manibus et eodem

ut cervices suorum flectere valeret inimicorum. Quod autem eloquentia plurimum valuerit, testatur oratio, qua suam suorumque coram Joseph allegavit necessitatem. Narrat praeterea Josephus historiographus, verbis eum potuisse quam plurimum. Porro autem quod robore inter fratres suos eximius haberetur, testantur Verba dierum, quae hoc modo referunt: Porro Judas qui erat fortissimus inter fratres suos de stirpe ejus principes germinati sunt. Quod autem subjicit: Adorabunt te filii patris tui, aperte regnum quod Ruben abstulerat, Judae concredidit dicens, eum a reliquis fratribus suis adorandum: quod regiae utique congruit dignitati.

Mystice autem per Judam ille jam tunc praefigurabatur, qui de ejus stirpe secundum carnem natus est, Dominus et Salvator noster; quem laudant fratres sui omnes, videlicet in eum credentes unde ipse primus in illis qui in eum crediderunt, a monumento per mulieres mandatum direxit, dicendo: Ite, et dicite fratribus meis. Ne autem putemus, hanc dignitatem solis apostolis attributam, ut fratres ejus vocentur; ipse hac dignitate donandos omnes qui in eum credunt, testatur dicendo: Quicumque fecerit voluntatem Patris mei qui in coelis est, ipse meus frater, soror et mater est. Ipsum ergo laudant fratres; videlicet omnis Ecclesia, quae adhuc a coelesti haereditate exsulat in terris, sive quae jam praecessit ad coelos. Unde psalmus: Laudent illum coeli et terra. Et in Apocalypsi Joannes: Laudem dicite Deo nostro, omnes servi ejus, et qui timetis eum, pusilli et magni. Cujus manus in cervicibus inimicorum ejus sunt; quia, secundum crucis trophaeo et suos textit, et inimicas adversariasque potestates devicit.

Juxta quod et Pater promittit ei dicens: Sede ad dexteram meam, donec ponam inimicos tuos scabellum pedum tuorum.

Adorabunt te filii patris tui, quoniam multi ex filiis Jacob adorantes [eum] per electionem gratiae salvi facti sunt.

Catulus leonis Juda, quoniam nascendo parvulus factus est, sicut scriptum est: Parvulus natus est nobis. Ad praedam fili mi ascendisti, id est, ascendens in crucem, captivos populos redemisti [et] quos adversarius ille invaserat [tu moriens eripuisti. Denique rediens ab inferis ascendisti] in altum, captivam duxisti captivitatem. Requiescens accubuisti ut leo. Manifestissime Christus accubuit in passione, quando inclinato capite tradidit spiritum, sive quando in sepulcro [securus] velut quodam corporis somno quievit. Sed quare ut leo et [velut] catulus leonis? In somno suo leo fuit, quoniam non necessitate, sed potestate hoc ipsum implevit, sicut ipse dicit: Nemo tollet a me animam meam, sed ego ponam eam. Quod vero addidit: Et ut catulus leonis; inde enim mortuus est, unde [et] natus. Bene [ergo] Christus ut leo requievit, qui non solum mortis acerbitatem non timuit, sed etiam in ipsa morte mortis imperium vicit.

Evangelii testimonium: Omnia dedit ei Pater in manus. Ipse etiam his verbis consentit, dicendo: Data est mihi omnis potestas in coelo et in terra. Et Pater ad eum loquitur: Sede a dextris meis, donec ponam inimicos tuos scabellum pedum tuorum. Quem adorant filii patris ejus; omnes videlicet per eum adoptati in filiorum dignitatem, juxta quod Apostolus loquitur: Ut in nomine Jesu omne genu flectatur, coelestium, terrestrium et infernorum.

Sequitur: Catulus leonis Juda: ad praedam, fili mi, ascendisti: requiescens accubuisti ut leo, et quasi leaena: quis suscitabit eum? Quantum attinet ad superficiem litterae, fortitudo regum a stirpe Juda descendentium per haec verba praefiguratur: qualem beatum David fuisse legimus, et beatum Ezechiam, et caeteros quosque qui divinitati humillime famulantes, vires hostium, eo donante, instar leonis et leaenae subegerunt, et adeo terrori hostibus exstiterunt, ut nullus eos lacessire ad pugnam quasi quiescentes praesumeret: cuius rei testes sunt libri Regum.

Typice autem catulum leonis Dominum Salvatorem appellat, tamquam leonina ortum prosapia; videlicet regia stirpe progenitum. Bene autem catulus leonis vocatur, cujus natura esse dicitur, ut nascens tribus diebus dormiat, deinde rugitu paterno excitatus assurgat. Quae figura pulcherrime arridet Dominicae dormitioni; qua tribus diebus dormiens ad Patrem clamat: Tu autem, Domine, miserere mei, et resuscita me. Sed resuscitatus ad praedam ascendit; quia exspolians infernum, justos quosque ad superna secum tamquam

	praedam egregiam triumphando evexit. Qui ut leo, et quasi ut leaena accubuit; quia qui dormire per carnem in sepulcro voluit, quasi leo victor de hostibus triumphavit.
Quod autem dicit: Quis suscitabit eum? Quid est aliud nisi quod ipse dicit: Solvite templum hoc, et in triduo suscitabo illud, Migne, *P. L.*, vol. C, col. 562 f.	Quod autem subjungit: Quis suscitabit eum, subauditur, nisi Pater? Nullus enim non dicam hominum caducorum, sed nec quilibet Angelorum, nisi is de quo Petrus apostolus dixit Judaeis: Quem Deus suscitavit a mortuis, cujus nos testes sumus, Migne, *P. L.*, vol. XX, col. 720 f.

Rufinus' *De benedictionibus* begins with a letter of Paulinus to Rufinus, asking him to explain to him the Benediction of Judah, especially the sentence, "alligans ad vitem pullum suum, et ad cilicium pullum asinae suae." Rufinus answers in a letter that "cilicium" is a blundering translation of ἕλιξ, and finishes with the statement that he will treat the Benediction of Judah from the historical and mystical standpoints: "Quaedam referuntur ad Judam; sicut in complurimis caeteris, etiam in hoc capitulo sentiendum est, ut alterno intellectu expositio dirigatur, et interruptio Historialis intelligentiae Mystici sensus prodat arcanum."[1] Then follows the *Benedictio Judae*, which ends, not only with a spiritual interpretation, but also with a moral interpretation: "Verum quoniam Scriptura divina non solum sacramentorum debet scientiam continere, verum etiam mores, gestaque informare discentium (sic enim et Sapientia per Salomonem dicit, Describe tibi haec dupliciter et tripliciter in corde tuo: et arca quae construebatur a Noe, bicamerata et tricamerata fieri jubetur), conemur et nos, posteaquam dupliciter ista, pro ut potuimus sentire, descripsimus, id est, secundum Historiam et secundum Mysticum intellectum, nunc in quantum recipere locus potest, jam Moralem, in eo discutere sermonem, ut Scripturarum studiosi, non solum quid in aliis, vel ab aliis gestum sit, sed etiam ipsi intra se, quid gerere debeant, doceantur."[1] The other Benedictions are preceded by a letter of Paulinus to Rufinus and an answer by Rufinus, who informs Paulinus that he wrote the latter part at the monastery of Pinetum, where he was situated.

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[1] Migne, *P. L.*, vol. XXI, col. 299.

The previous Benediction is ascribed to Paulinus of Milan. Isidore, in chapter XVII of *De viris illustribus*,[2] mixes him up with Paulinus of Nola, but he knows nothing of this man's activity except that he wrote a Benediction and a life of Ambrose. It is inconceivable that Isidore should have known so little of so great a man. Besides, the blunder "triplici intelligentiae genere" instead of "duplici intelligentiae genere," stamps the whole as the product of a later, ignorant writer. In chapter VI[3] the ignorance is even greater, because the author knows nothing whatsoever about Rufinus, except that he wrote a Benediction. From this it is clear that we have in these two chapters not the words of Isidore, but of a later forger. This can be shown from another consideration.

We have already seen that the story of the lion cub in the *Physiologus* is absent from Alcuin's version, although it is found in the related versions, ascribed to Eucherius, Bede, Isidore of Seville, and Rabanus Maurus. In Isidore's *Etymologiae* it is present as an insertion, for in the margin of a Codex Toletanus mentioned by Migne[4] the story of the lion is repeated in full as follows: "Leo enim Graece, Latine vero rex dicitur. Tres naturas habet, id est, cum ambulat, et iter facit per arenam odor venantium, et cauda sua

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[1] *Ibid.*, col. 307.
[2] Działowski, *op. cit.*, p. 27.
[3] *Ibid.*, p. 11.
[4] *P. L.*, vol. LXXXII, col. 757.

operit vestigia, ut non possint eum venatores sequi. Ita et Salvator noster de tribu Juda, missus a Patre operit vestigia sua, id est, deitatem, ut appareret omnibus dum . . cum Patre descendens in uterum Virginis, ut salvaret, quod perierat, et Verbum caro factum est, et habitavit in nobis. Et hoc ignorantes homines, dum descenderet de coelo, et ascenderet, dicebant: Quis est iste rex gloriae? Secunda natura; dum dormierit, oculi ejus vigilant, aperti enim sunt. In Cantica Canticorum de eo dicitur: Ego dormio, et cor meum vigilat. Non enim dormit, neque obdormitat, qui custodit Israel. Tertia; cum genuerit catulum suum, mortuum eum generat, et leaena filium custodit, donec veniat pater ejus tertia die, et insufflat in faciem ejus cum ingenti rugitu, et suscitat eum. Sic omnipotens Pater suscitavit tertia die Unigenitum suum; unde per Jacob dicitur Catulus Leonis Juda." There is still another marginal addition in this Codex, namely about the charadrius, which is taken from the *Physiologus*, as we shall later see. It is plain, therefore, that the only two additions about animals from the *Physiologus* in the margin are due to a later hand; but, while the charadrius did not find its way into the text, the extremely popular lion story of the eighth century had already found its way into the text, and the later editor, who knew a still different version of the same story, apparently in another copy of the *Etymologiae*, hastened to add it in the margin, as belonging to Isidore. But the story of the lion cub is taken out of the Benediction ascribed to Rufinus.

First, as to the manuscripts in which the Benedictions ascribed to Rufinus are found. Only two of these have come to light. *Vind. 847*, formerly *Theol. 682*, is described[1] as a quarto volume written in majuscule in the sixth or seventh century and containing on the first page a mystic representation of the cross, then four pages of the Eusebian canons of the Concordia of the four Gospels, on the sixth a Greek title page of the Gospels, on the seventh again a mystic representation of the cross, and on the eighth begins the letter of Paulinus. Lambecius gives a reproduction of pages one, six, seven and eight, so that an idea may be formed of the palaeography. The second MS. is an eighteenth century apograph from a ninth century copy of the first.[2]

A comparison of the palaeography of the letter to Rufinus with Planche X. 2 of L. Delisle's *Le Cabinet des manuscrits*, but more especially with the writing of the Ada MS.,[3] shows that palaeographically the text may be of the eighth or ninth century, while the two marginal decorations are identical in substance with those employed in the imitative Carolingian Gospels. What makes it certain that we have before us a late eighth or early ninth century document, is the presence of the Eusebian canon and a title page of the Gospels, which are absurdly out of place here, but which are frequently found in the Carolingian Gospels. The still more absurd Greek contents page gives further proof that we are dealing here with a forgery. The forger copied from a Greek original the Eusebian canon and the title page of a Gospel, and stupidly attached these to the Benedictions. That the whole forms one volume is proved by the illustrated pages one and seven, which are of the same type, although each is intended to head the separate parts. It is to be assumed, therefore, that the forger took the Greek, which represents an older stage, as a sample for his Latin forgery.

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[1] Petri Lambecii Hamburgensis *Commentariorum de augustissima bibliotheca Caesarea Vindobonensi liber secundus*, Vindobonae 1769, col. 624 ff.

[2] *CSEL.*, vol. XXIX, p. XX.

[3] K. Menzel, P. Corssen, etc., *Die Trierer Ada-handschrift*, Leipzig 1889.

The very arrangement of the matter in the Benedictions shows that it is due to Carolingian scholarship. There is a *Liber generationis Jesu Christi*[1] which is attributed to Alcuin, and which is arranged according to literal, allegorical and moral interpretations. Here we find the sentence: "Sed sciendum est quia horum omnium nomina allegorici et moralis sensus pleniter in se contineant intellectus." Of course, we have any amount of allegorical explanations from the earliest time on, but this seems to be the only occasion where a work is divided into "interpretatio litteralis, allegorica, moralis." There can be little doubt that the forger was acquainted with Alcuin's work, when he made a similar division in his Benedictions. But we have also these very Benedictions in Alcuin's version, which are arranged according to the historical and allegorical divisions, for which purpose he added to Isidore's medley Jerome's *Quaestiones.* This division of the Benedictions into two parts is based on Ambrose's and Augustine's specific references to the double value of the Benedictions. Ambrose says: "Meritoque repetitam magis adnuntiationem eorum quae posterioribus essent euentura temporibus quam benedictionem conferre se dicit. Denique sic coepit: Ruben primitiuus meus, tu uirtus mea et initium filiorum meorum, durus portari et durus temerarius, adfecisti contumelia; sicut aqua non efferueas; ascendisti enim in cubile patris tui: tunc polluisti torum, quo ascendisti. Nonne redargui magis quam benedici uidetur? Et ideo prophetia magis quam benedictio est. Prophetia etenim adnuntiatio futurorum est, benedictio autem sanctificationis et gratiarum uotiua conlatio."[1] Also, "gesta igitur patriarcharum futurorum mysteria sunt."[2] Augustine writes: "Nobis autem quisquis dixerit non ideo alia uel gesta uel scripta, ut Christus in eis intellegatur, excepta ipsa tanta consonantia rerum praefiguratarum et nunc inpletarum aliis praesagiis propheticis apertis manifestisque ferietur."[3] One need only read the passage in Rufinus' introduction to the Benediction of Ruben, in order to see that we have here an adaptation of Alcuin's tripartite division and an elaboration of Ambrose's and Augustine's historical and allegorical explanations.

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[1] Migne, *P. L.*, vol. C, col. 725 ff.

The passages which betray the forger more particularly are those which deal with the lion cub: "Catulus leonis Juda, de germine filius meus ascendisti: recubans dormisti sicut leo, et sicut catulus leonis: quis suscitabit eum? In his versiculis, non jam concludimur, sed pene excludimur; nam catulum leonis si exponamus, Judam dici posse pro virtute bellandi, quomodo exponetur, quod de germine filius dicitur ascendisse? Germen autem hic in Graeco βλαστὸν dicitur, quod magis virgultum, vel ramus recte interpretatur, qui de radice repullulare, vel de ipso robore arboris solet. Ex quo ergo virgulto, vel ex quo ramo Judas ascendisse dicetur, vel quomodo recumbens dormisse ut leo, et ut catulus leonis, ita ut quaeratur, quis cum suscitet? Nisi forte aliquis vim faciens, velit ita adseverare: Ex germine processisse Judam, id est, ut superius diximus, ex virgulto vel ex ramo, quod de ipsa patris fortitudine et virtute significet: quique virtutis confidentia recubet et quiescat, ut leo et ut catulus leonis; nec eum ausus sit aliquis

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[1] *De Patriarchis, CSEL.*, vol. XXXII², p. 127 f.
[2] *De Joseph, ibid.*, p. 122.
[3] *Contra Faustum*, XII. 41, *CSEL.*, vol. XXV, p. 367.

suscitare, dum pro magnitudine virium, et potentia beatorum suscitare eum nullus audeat ad praelia. Sed multo convenientius aptabitur huic loco mystica expositio, in qua catulus leonis, Christus, non solum φυσικῶς, verumetiam τροπικῶς designatur. Nam Physiologus de catulo leonis haec scribit, Quod cum natus fuerit, tribus diebus ac tribus noctibus dormiat: tum deinde patris fremitu vel mugitu, tanquam tremefactus cubilis locus, suscitet catulum dormientem. Iste ergo catulus ascendit ex germine: ex Virgine enim natus est, non ex semine, sed ex virgine absque concubitu virili, et absque semine naturali Christus. Velut virgultum, sive ramus, in quo manifestissime et veritas carnis adsumtae ex Virgine declaratur in sacrosancto germine, et a contagio carnalis et humani seminis excusatur. Recumbens dormisti ut leo, et sicut catulus leonis. Manifeste recubuisse et dormisse, dictum de passione mortis ostenditur. Sed videamus quare ut leo, et ut catulus leonis, dormit. De catuli quidem somno jam superius dictum est, quod valde convenienter adaptatur Christo, qui tribus diebus et tribus noctibus in corde terrae sepultus, somnum mortis implevit. Ut leo autem, hoc modo debere intelligi arbitror: Mors Christi oppressio et triumphus daemonum fuit, omnem namque praedam, quam leo ille contrarius invaserat, prostrato homine et dejecto, hic leo noster eripuit: denique rediens ab inferis, et ascendens in altum, captivam duxit captivitatem. Hoc ergo modo, et in somno suo leo fuit vincens omnia et debellans, et destruxit eum, qui habebat mortis imperium. Et velut catulus leonis, die tertia suscitatur. Quis suscitabit eum? Recte quasi inquirentis prophetae personam, quae suscitet Christum, sermo significat, quia Apostolus quidem dicit: Quia Deus illum suscitavit a mortuis. Et, Qui suscitavit Chris-

tum a mortuis, suscitabit et mortalia corpora vestra propter inhabitantem spiritum ejus in vobis. Et iterum ipse Christus dicit in Evangeliis, Solvite templum hoc, et ego in tribus diebus suscitabo illud: hoc autem dicebat de templo corporis sui. Quia vero ipse dicit, suscitasse templum suum, et Deus illum dicitur suscitasse: recte Propheta stupore tantae Patris et Filii unitatis, atque indiscretionis attonitus dicit, Quis suscitabit eum?"[1] "Catulus leonis Juda, ex germine, fili mi, ascendisti. Merito catulus leonis appellatur, qui Christo concrucifixus est et conresurrexit, sicut et Paulus dicebat, qui et ipse merito in Judam accipitur, confitebatur enim peccatum suum dicens, Non sum dignus vocari Apostolus, quia persecutus sum Ecclesiam Dei. Et iterum quod Christus est, esse dicit seipsum, cum ait: Christo concrucifixus sum: vivo vero jam non ego, vivit vero Christus in me. Est ergo catulus leonis, qui dormit cum Christo, dum mortuus est peccato, et resurrexit cum Christo, dum vivit Deo."[2]

The second extract, which is merely the "moral" explanation, is purely the forger's development of the subject and is found nowhere else. The first extract betrays itself in the phrase, "*Physiologus* scribit," since *Physiologus*, in the singular, is found in no writer whatsoever before the appearance of the book *Physiologus* in the eighth century. We find "physiologi, physici" quite frequently, but there is no one "physiologus" who is ever so mentioned. The oldest mythological account of the type referred to by the forger is found in Ad-Damīrī:[1] "The authors of books treating on the subject of natures of animals say as regards the well known beast of prey,—the lion,—that its female gives birth to only one whelp at a time, which at its birth is only a mass of flesh without any sense of feeling or movement; she watches it in that state for three days, at the end of which period the male parent comes to it and blows into its mouth several times till it begins to breathe and move; its limbs then become loose and it takes the appearance of the male parent. The dam then comes and suckles it, but it does not open its eyes until after seven days from its birth. When it is six months old it has to learn to obtain its own prey." Pliny records the fact that the lioness is able to bear young no more than once and that the young ones, when first born, are shapeless and extremely small in flesh and are unable to walk for six months.[2] Hence the Arabic account is a mixture of the traditional classic statement and a deallegorization of the resurrection of Christ, Who is brought to life by the Father, as given in the Benediction of Judah. The juxtaposition of the resurrection of Christ and the lion and cub led to the assumption that the cub is awakened by his father, as Christ is by His Father. A Syriac, Greek, or Latin source may be responsible for the Arabic story, but it is clear that the Arabic version is older than any recorded in the *Physiologus* or in Pseudo-Rufinus, since it does not yet possess the confusion of the story with the clause in Augustine, "inde mortuus unde et natus," which led to the further development that the cub is born dead, to be revived three days later by the father. Since the Arabic has the older version, all the versions of the *Physiologus*, every one of which is based on the Benediction of Judah,[1] cannot have arisen before the arrival of the Arabs into Spain.

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[1] Migne, *P. L.*, vol. XXI, col. 301 ff.

[2] *Ibid.*, col. 308.

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[1] *Op. cit.*, vol. I, p. 6.

[2] VIII. 45. For other similar accounts see F. Lauchert, *op. cit.*, p. 6.

What more than anything else condemns the Benedictions of Rufinus, is the fact that, although the allegorical interpretation of Reuben's Benediction and most other allegorical interpretations in the versions ascribed to Alcuin and Jerome are identical in wording with those ascribed to Rufinus, the story of the lion cub is significantly absent from Alcuin and Jerome, but is complete in Rufinus. If Rufinus' Benedictions existed before those of Alcuin, then the story of the lion cub must have been absent from it, for Alcuin could not possibly have omitted it. If, however, the identity of wording in Rufinus and all the other versions, except that of Paulinus, is due to a common source, then Rufinus' version is a downright forgery. In any case, the lion cub story found its way into the Benedictions from the *Physiologus* in the eighth century, and not earlier. In all the *Physiologi* the lion occupies the first place. So it does in Ad-Damīrī, where the animals are arranged in alphabetical order, and اسد *āsaḍ* "lion" begins with the first letter of the alphabet. It is this phonetic accident chiefly which has given the lion the first place among animals in the Middle Ages.

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[1] See Karnyeev, *op. cit.*, p. 161 ff.

XXII. THE SAW.

Syriac ܕܘܠܦܝܢ *dūlfīn* means not only "dolphin," but also "crocodile;" hence we have in the Syriac *Physiologus* ܡܣܪܐ *masårå* "dolphin," where the word is due to its confusion with Copt. *msah* "crocodile," which has also produced Arab. تمساح *ṭimsāḥ* "crocodile," where the initial *ṭ* is the Coptic feminine article. But Syriac ܡܣܪܐ *masårå*, from the root ܢܣܪ *nsar* "to cut," also means "saw," and in the Biblical passages in which this word occurs the corresponding Greek equivalent is πρίων "saw."

The *Physiologus* tells of the serra, πρίων, that it is an animal of the sea with large fins or wings. It runs a race with boats, but it gets tired and draws in its wings and returns to its old place. It has been observed by all who have written on the *Physiologus* that the description fits the dolphin and not the sawfish. Indeed, the Arabic versions[1] refer the story to the دلفين, where the Syriac version has ܡܣܪܐ *masårå*. From this it follows that the Greek, Latin and other versions were made either directly from the Syriac, or from an Arabic version where ܡܣܪܐ was understood as "saw." Whichever way we take it, the story could have arisen only after the Syrians became acquainted with the Coptic word for "crocodile," that is, after the middle of the seventh century, when the Syrians followed the Arabs through Egypt. In the middle of the eighth century the story is already recorded in the *Glossa glossarum* in Spain, thus making it once more clear that the *Physiologus* is of Syriac origin and reached the West through an Arabic version. This is made absolutely certain by the juxtaposition of the *autolops* and the *serra.* The autolops was declared to have serrated horns, which, of course, is wrong, since it refers to the stag with its spreading horns. This mistake is due to the Arabic verb نشر *našara,* which means both "he spread out, pricked his ears" and "he sawed wood." Thus the autolops, *yāmūr,* was declared to have "serrated" horns, when it should have been "spreading" horns. At the same time it suggested the juxtaposition of the marine animal with the autolops, because it was called "saw." Only the Arabic version could have produced this result.

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[1] Land, *op. cit.*, vol. IV, p. 150 f.

XXIII. THE FIREBEARING STONES.

The same Arabic source is the cause of the welding together of the story of the autolops with the firebearing stones, as may be seen from the last paragraphs of several of the versions. In some versions this forms a separate chapter. Here the juxtaposition is due to the fact that the Arab. شجرة *šaǵaraṭ* "tree" immediately suggested "the flint." We have already seen that *šaǵaraṭ* is, according to an Arabic tradition, the tree of Paradise. The same tradition[1] unites with it the صخرة *ṣaḥraṭ* "the stone of Paradise, the rock of Jerusalem." But صخر *ṣaḥr* is "hardstone," and the "two horns" of the autolops at once suggested the "two stones," of which Pliny says: "Aëtitae lapides ex argumento nominis magnam famam habent. Reperiuntur in nidis aquilarum, sicut in decumo volumine diximus. Aiunt binos inveniri, marem ac feminam."[2] This became confused with the description of the lightning which was likened to the striking together of two firebearing stones, as fully described by Origen in his homily on Jeremiah: «Καὶ ἀστϱαπὰς εἰς ὑετὸν ἐποίησεν. Λέγουσιν οἱ πεϱὶ ταῦτα δεινοί, ὅτι ἡ γένεσις τῶν ἀστϱαπῶν ἀπὸ τῶν νεφελῶν γίνεται ἀλλήλαις πϱοστϱιϐομένων· ὅπεϱ γὰϱ συμϐαίνει πεϱὶ τοὺς πυϱοϐόλους λίθους ἐπὶ γῆς, ἵνα δύο λίθων πϱοσκϱουσάντων πῦϱ γενηθῇ, τοῦτο γίνεσθαι καὶ ἐπὶ τῶν νεφελῶν φασιν· πϱοσκουομένων τῶν νεφελῶν κατὰ τοὺς χειμῶνας γίνεται ἡ ἀστϱαπή· διὸ ὡς ἐπίπαν ἡ ἀστϱαπὴ ἅμα βϱοντῇ γίνεται, τῆς μὲν βϱοντῆς ἐμφαινούσης τὸν ἦχον τοῦ συγκϱουσμοῦ τῶν νεφελῶν, τῆς δὲ ἀστϱαπῆς γεννώσης τὸ φῶς».[1] The Gr. πυϱοϐόλος would be written in Arabic بربول, and if the diacritical marks are misread, we get تربول *terbul*, as, indeed, we get in the oldest Latin version: "sunt in quodam monte Orientis lapides igniferi qui graece dicuntur *terrobuli* (*terebolim*, *thereboleni*),"[2] further corrupted to *caerobolim*, *chiroboli*.[3]

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[1] In Lane, sub شجر.

[2] XXXVI. 149.

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[1] *Die griechischen christlichen Schriftsteller der ersten drei Jahrhunderte,* Leipzig 1901, vol. III, p. 60.

[2] Cahier, *op. cit.*, vol. II, p. 126.

[3] *Ibid.*

XXIV. THE CHARADRIUS.

The *Liber glossarum* has the following account of the *charadrius:* "*Charadrius*, avis quae in Deuteronomio praecipitur non manducari. Physiologus dicit de hoc, si tamen credendum est, quia totus albus est, nullam partem habens nigram, cuius interior fimus curat caliginem oculorum: istud in vasis regum invenitur."[1] This is the original version. In the Greek and the Latin *Physiologus* we have only expanded material. The *Berne MS. 233* reads: "Est volatil quae dicitur *caladrius.* Hoc scriptum est in Deuteronomio: non manducandum. Fisiolocus dicit de hoc quia totus albus est, nulla partem habens nigram; cujus interius femus currat caliginem oculorum. Studi natrius regnum invenitur. Si quis autem est in egretudine constitutus, ex hoc caladrio cognoscitur si vivat ut moriatur. Si ergo est infirmitas hominis ad mortem, mox ut viderit infirmum avertit faciem suam ab eo caladrius, et omnes cognoscunt quia moriturus est. Si autem infirmitas ejus non pertinet ad mortem, intendit faciem ejus caladrius et adsumet omnes egritudines infra se; et volat in aera solus, et conburet infirmitates ejus, et dispergit eam; et erit salvus infirmus. Caladrius igitur personam accepit Salvatoris nostri: totus est candidus Dominus noster, nullam habet egritudinem, sicut de se cestatus est, quoniam venit princeps hujus mundi, et in me non invenit quicquam; quippe qui peccatum non fecit, nec inventus est dolus in ore ejus. Veniens autem de excelsis coelis suis ad infimum populum Israel, avertit faciem suam ab eis propter incredulitatem eorum; convertit se ad nos Gentes, tollens infirmitates nostras; et peccata nostra portans, exaltatus est in tigno crucis. Ascendens enim in alto, captivam duxit captivitatem, dedit dona in hominibus. Etenim qui non crediderunt, non receperunt; quotquod autem receperunt, dedit eis potestatem Filius Dei fieri, his qui credunt in eum. Sed forsitan dicis quia caladrius secundum Legem immundus est. Certum est; nam et serpens inmundus est, et Johannis testatur de eo dicens quoniam sicut Moyses exaltavit serpentem in deserto, sic exaltare oportet filium hominis. Et alibi prudentior datus est omnium bestiarum. Similiter etiam et leo et aquila inmunda sunt, sed illi ferarum rex est, et illa volatilium. Secundum regnum ergo Christo adsimilata sunt, secundum rapacitatem vero diabolo. Et alia multa sunt in creata habeat duplicem intellectum; alia quidam laudabilia, alia vero vituperabilia; et deferentia inter se atque discreta, sive moribus sive natures."[1] The matter in the *Liber glossarum* shows that we are dealing with the falcon and not the charadrius, hence *charadrius*, *caladrius*, etc., are only misrenderings of Arab. صقرة *ṣaqraṭ* "the hawk," pl. صقارة *ṣiqāraṭ*, صقورة *suqūraṭ*, of which the white species is called شاهين *šāhēn* "the royal falcon." This is all white, is kept in palaces, and, according to the Syriac popular medicine, its gall is used to cure blear eyes: "The Hawk. Smear with its gall the eyes of the man who hath blearedness. Its blood will make the hair grow. He who eateth its heart shall shine greatly. He who eateth its spleen shall have a healthy spleen."[1] The change of *ṣaqraṭ* to *sacharad*, and hence to *charadrius*, suggested the matter about the charadrius in Pliny and the hermeneutic explanation.

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[1] Mai, *op. cit.*, p. 591 f.

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[1] Cahier, *op. cit.*, vol. II, p. 130 ff.

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[1] E. A. W. Budge, *Syrian Anatomy, Pathology and Therapeutics, or "The Book of Medicines,"* London, etc., 1913, vol. II, p. 702.

XXV. THE PELICAN.

The *Liber glossarum* says: "Pelicanus. Physiologus dicit, quoniam amator filiorum nimis est: si autem genuerit natos, et modicum creverint, percutiunt se in faciem parentum; parentes autem colaphizant eos et occidunt: deinde misericordia ducti parentes duobus diebus lugent filios suos, quos occiderunt, et tertia die venit eorum pater, corripit latus suum: sic sanguis eius adspargitur super mortuorum corpora pullorum, et ex ipso sanguine calefacti mortui suscitantur."[1] The story is told by Ephraem as follows: "Ferunt repertam avem, quae pullis suis statim a partu extinctis spiritum iterum refundat. Facta nimirum mater, dum natos complexatur et premit, suffocat. Postquam vero illos nec spirare videt, nec moveri, agnoscitque prorsus extinctos, tantum ajunt, inde dolorem suscipere, ut per triduum omni cibo potuque abstineat. Interim nec a nido abesse sustinet, sed eodem perstans loco, natorum cadavera custodit: postremum inflicto vulnere fundit sanguinem, qui simul ac pullos tetigit, animat, divino sic jubente praecepto. Jam si avis suos novit suscitare natos, disce peccator, vitam animae tuae reddere tuis ereptam peccatis. Caeterum, si pellicani calamitate eo tangitur Deus, ut praeter naturae ordinem ejus pullos vivificet, quam opido ipsi graviorem fore putas tuam in procuranda animae tuae resurrectione socordiam. Nam, si avis natos moeret extinctos, adeo ut aegritudinis suae impatiens sponte sibi mortem consciscat, sique ipsius Conditor dolorem ejus dolet, et relevat, perverso naturae ordine; intelligis, credo, illum animae tuae sentire interitum, et ejusdem separationem: sentit utique et moeret, imaginem suam ab ipso se sponte dividere, quin ergo tu pariter doles et ploras, quando ille tui causa moeret, quasi mater super unigenitum suum."[1]

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[1] Mai, *op. cit.*, p. 594.

The genuineness of Ephraem's exegetic article, in which this story is told, depends upon the fact whether ܩܳܩܳܐ *qåqå*, translated in Latin by "pelicanus," was really the pelican or some other bird. If it means "the pelican," the writing cannot belong to Ephraem. Unfortunately it is not possible to ascertain the precise meaning, though Ephraem says: "Graculus et Pica homines agrestes et garrulos notant. Hocce siquidem avium genus reptilia in locis palustribus nascentia persequitur, eisque vescitur; et in desertis locis moratur; crocitat et perpetuo strepitat,"[2] where the word translated by "graculus" is also ܩܳܩܳܐ *qåqå*. From the fact that the bird lives on reptiles in swampy places, one would think of some variety of the pelican, and if so, the exegetic writing is not Ephraem's, because the description of the *Liber glossarum* and in the Syriac is not that of the pelican, but of the vulture.

Aristotle treats the vulture, eagle and raven together. "The so-called phene, or lämmergeier, is fond of its young, provides its food with ease, fetches food to its nest, and is of a kindly disposition. It rears its own young and those of the eagle as well; for when the eagle ejects its young from the nest, this bird catches them up as they fall and feeds them. For the eagle, by the way, ejects the young birds prematurely, before they are able to feed themselves, or to fly. It appears to do so from jealousy; for it is by nature jealous, and is so ravenous as to grab furiously at its food; and when it does grab at its food, it grabs it in large morsels. It is accordingly jealous of the young birds as they approach maturity, since they are getting good appetites, and so it scratches them with its talons. The young birds fight also with one another, to secure a morsel of food or a comfortable position, whereupon the mother-bird beats them and ejects them from the nest; the young ones scream at this treatment, and the phene hearing them catches them as they fall."[1] "Birds of the eagle species are not alike in the treatment of their young. The white-tailed eagle is cross, the black eagle is affectionate in the feeding of the young; though, by the way, all birds of prey, when their brood is rather forward in being able to fly, beat and extrude them from the nest. The majority of birds other than birds of prey, as has been said, also act in this manner, and after feeding their young take no further care of them; but the crow is an exception. This bird for a considerable time takes charge of her young; for, even when her young can fly, she flies alongside of them and supplies them with food."[2] According to Horapollo, the vulture when feeding its young, lacerates its thigh and feeds them on its blood.[3] This φήνη or γύψ, the lämmergeier of the English translation, is the *mut* of the Egyptian religion, the mother *par excellence:*[4] "He cometh to his two mothers, these two vultures, with the long hair and the hanging breasts, which are on the mountain of Seḥseḥ, and they put their nipples into the mouth of Pepi straightway, and they are with him for ever;"[1] "she is like a vulture in effecting thy protection" (Pyramid Texts).[2]

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[1] *Sancti patris nostri Ephraem Syri opera omnia quae exstant,* Romae 1740, vol. II, Syriace et latine, p. 346 f.

[2] *Ibid.,* vol. I, p. 276.

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[1] *Historia animalium,* IX. 34, in *The Works of Aristotle,* ed. by J. A. Smith and W. D. Ross, Oxford 1910, vol. IV, p. 619 b.

[2] VI. 6, *ibid.*, p. 563 b.

[3] «Ἐν αἷς τὰ ἑαυτῆς ἐκτρέφει τέκνα, ἐπὶ πλεῖον οὐ πέτεται, περὶ δὲ τοὺς νεοσσοὺς καὶ τὴν τούτων τροφὴν ἀσχολεῖται, ἐν αἷς ἀπορήσασα τροφῆς, ἣν παράσχηται τοῖς νηπίοις, τὸν ἑαυτῆς μηρὸν ἀνατεμοῦσα, παρέχει τοῖς τέκνοις τοῦ αἵματος μεταλαμβάνειν, ὡς μὴ ἀπορήσαντα τροφῆς ἀναιρεθῆναι,» C. Leemans, *op. cit.*, p. 17.

[4] R. V. Lanzone, *Dizionario di mitologia egizia,* Torino 1883, vol. III, p. 330 ff., where the vulture is represented with two human beings in its claws.

Out of this Egyptian myth arose the story of the vultur maximus, which is found in the Parsee *Bundehesh* as *karkas* and in Syriac as ܩܪܳܩܣܳܐ *qråqså*, for which the manuscript Syrio-Arabic Dictionary gives the Arabic translation غراب ابلق *gurāb 'ablaqu*, literally "the raven with white and black spots." That the original Arabic story in the *Physiologus* dealt with the vulture and not the pelican, is proved conclusively by the Ethiopic version,[3] which begins as follows: "Of the bird whose name is *palḳān*, which is the *gĕrāb*," to which the German editor says that the latter is the translator's gloss, and that *gĕrāb* means "inflated skin, hose." This, of course, is wrong, *gĕrāb* being the first part of the Arab. *gurāb 'ablaqu*.

The Arab. ابلق *'ablaqu*, fem. بلقاء *balqā'u*, pl. بلق *bulqun*, means "black and white, white in the hind legs as high as the thigh, which the Arabs apply to a beast of the equine kind." We have also بلق *balaqun* "blackness and whiteness (together, generally in horses); the extension of whiteness in the hind legs, any color with which white is mixed." The original meaning of the root is "to break forth," but the special meaning, as referring to horses marked white and black, seems to originate in the Berber country, where we have universally the root *brk* "black."[1] In Kabyl we have *aberkan* "black, somber," *berrik* "to be black;" and we have also the root *berqec* "to be speckled," which may be related to this root, especially since *aberkan* means "a kind of plum," and *aberquq* "plum." From the latter comes our "apricot." Now, this Berber *brk* produced the Arab. *'ablaqu*, etc., which spread throughout Europe soon after the arrival of the Arabs. We have early recorded AS. *blaec*, *blac* "ink, black, swarthy," but also *blāēc* "pale, livid," because the Arabic term led both to "black" and "white." In AS. *blāēcþa* "leprosy" we have the term referred to the form of leprosy which showed itself in white and black patches. We have the same confusion in ONorse, where we have *blakkr* "dead, dusky black, pale," *bleikr* "pale, color of ashes, color of death," and in OHGerman, where we have *plach* "ink" and *bleih* "pale." But the Gothic lacks the term entirely. The nasalized OHGerman form *blanc* is several times recorded with *ros* "horse" as "white," *blanc ros* "candidus equus," which confirms the supposition that it was the introduction of the Arabic horses that led to the dissemination of the word among the Germanic and Romance peoples, hence Ital. *bianco*, Span. *blanco*, etc.

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[1] E. A. Wallis Budge, *Osiris and the Egyptian Resurrection*, London 1911, vol. II, p. 319.

[2] *Ibid.*, p. 55.

[3] Hommel, *Die aethiopische Uebersetzung des Physiologus*, p. 49.

The Arabic term *gurāb 'ablaqu* led to the confusion of the lämmergeier with the pelican, *'ablaqu* being mistaken for a form of "pelicanus," hence the totally unwarranted transference of the vulture characteristics, as conceived by all ancient writers, to those of the pelican, as conceived only after the arrival of the Arabs, that is, in the eighth century. Wherever we have the pelican story in any author reputed to be of an earlier date,[1] we have an interpolation, if not a downright forgery. In Ephraem, if the writing is genuine, ܩܳܩܳܐ *qåqå* is distinctly a later correction for the older ܩܪܳܩܣܳܐ *qråqså* "vultur maximus."

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[1] R. Basset, *Les noms des métaux et des couleurs en berbère*, Paris 1895, p. 27 f. See also his *Étude sur la Zenatia du Mzab, de Ouargla et de l'Oued-Rir'*, Paris 1892, p. 190, and his *Étude sur la Zenatia de l' Ouarsenis et du Maghreb Central*, Paris 1895, p. 117 f.

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[1] As, for example, in Isidore, XII. 7. 26.

XXVI. THE LIZARD.

In the Gothic Bible we have *malo* in Matthew VI. 19 and 20: "*þ*arei *malo* jah nidwa frawardei*þ* . . *þ*arei nih *malo* nih nidwa frawardei*þ*." The Greek has here «ὅπου σὴς καὶ βρῶσις ἀφανίζει.» All the modern commentators, taking σής to mean "moth," translate *malo* by "moth," a gratuitous assumption, because the Latin has "aerugo aut tinea," in which βρῶσις is apparently "tinea," while σής is intended for "aerugo." But, even assuming a transposition of the words, the case is not yet clear for Goth. *malo*, because Rabanus Maurus speaks of "tinea" as "worms or rot," and distinctly identifies it with "caries, dry rot."[1] The glosses[2] give "robigo, tinea βρῶσις ἡ ἀπὸ σκωλήκων ἤτοι σητῶν," which bears out Rabanus' statement that it is not so much "moth" that we have in mind with "tinea" as "dry rot, dust." We have also «σής ἢ σῆψις,» that is, σής means "putrefaction, rot." This identification with σῆψις introduces a confusion which leads to strange results in OHGerman. Σῆψις is confused with σήψ, which Aristotle calls a serpent whose bite causes putrefaction, but others identify it with the lizard or with some kind of insect.[3]

The Gothic translator distinctly opposes *malo* "dry rot" to *nidwa* "wet rot." His *malo* is another word for *malma*, and as *malo* indicates the root *malw-*, Goth. *gamalwjan* is to be explained as another formation from μάλαγμα, which has also produced *malma.* We have AS. *melu*, gen. *melwes*, OHG. *melo*, gen. *melawes* "meal, dust," which are obviously formed from μαλαγ-. This appears from the fact that OHG. *molt*, *molm*, *malm*, *mol* and even *olm* are translated by "stellio, poisonous lizard," while *olmoht* means "cariosus," precisely the same meaning being attached to *wurmmelo* "caries."[1] Thus we see that the words which originally meant "dust" were explained as in the Greek and Latin writers as "some kind of animal causing dust, presumably the poisonous lizard." This, then, shows that OHG. *melo* "flour" with *malan*, *muljan* "to grind" are, like the other forms, various kinds of contaminations, into which also enters OHG. *muli* "mill." But this, like AS. *miln*, ONorse *mylna*, is a borrowing from the Lat. *mola*, *molina.* The relation of OHG. *malan* to μάλαγμα is still better brought out in *ougmale* "collyrium," but the confusion with Lat. *molere* is proved by the fact that the latter has also the meaning "to paint," like OHG. *malon.*

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[1] "Quia aliae res sunt quas non vermes, sed rubigo, vel obfuscat, vel consumit, ut est aurum, argentum et caetera metalla; aliae vero quae a vermibus vel putredine solvuntur, ut sunt vestes et vasa lignea, quae carie dispereunt," Migne, *P. L.*, vol. CVII, col. 834.

[2] Goetz, *op. cit.*, in the Index.

[3] See Stephanus, sub *σήψ*.

We have in Sanskrit *musala* "the house-lizard," which is related to Kan. *mosaḷe*, *musaḷi*, Malayalam *mudale* "crocodile," all of which go back to Assyr. *muš-gallu*, lit. "big snake," from Sum. *muš* "snake" and *gal* "large." *Muššu* in Assyrian means "the sun, the disc of the moon, flashing of Šamaš." This is quite unnecessarily referred to the root *našu* "the wand of Šamaš," because, wherever we have a meaning "snake," we also have that of "fire, flashing." Thus Assyr. *maššu* "shining, bright," *mašū* "be light, shining," *maši* "stars," and the derivatives *mašaḫu* "rise, flash up" (said of stars), *mešḫu* "intense brilliancy," cannot be separated from this group. In Egyp. *msaḥ* "crocodile" we have, no doubt, a corrupted form of the same *mušgallu*, or, rather, a combination of which the first part is Sum. *muš* "snake," even as we have in Sumerian *musḥuš*, *mušmaḥ* "some kind of snake." From the Egyp. *msaḥ* or Copt. *emsah* is derived Arab. تمساح *ṭimsāḥ* "crocodile."

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[1] Steinmeyer and Sievers, *op. cit.*, vol. II, p. 323. This is not by any means a mere miswriting, for we find the word later in German. We have MGH. *ulmic* "carious," LG. *ulmig*, *olmig*, etc. See E. Verwijs and J. Verdam, *Middelnederlandsch Woordenboek*, 's-Gravenhage 1885–1912, sub *olm.*

It is interesting to observe how the crocodile got into the Germanic languages. The Latin glosses have "corcodillus animal in Nilo est, bestia in Nilo flumine," while Walafrid Strabo, excerpting Rabanus Maurus' commentary to Leviticus, quotes Pliny's account of the crocodile, "crocodilum habet Nilus," etc.,[1] which in the *Codex Carolsruh. Aug. CCXXXI*[2] reads "crocodrillos ut dicit plinius. habet *nilus*." All the later German glossators to the same passage in Leviticus copy an original blunder of a glossator who mistook "habet" for "Plinius habet," i. e., "Pliny calls it." Reading *nilus* as *nihus*, he took this to be the equivalent given by Pliny for the crocodile. Thus the outlandish *nihus*, *nichus*[3] became the name for the crocodile in OHGerman. In the AS. glosses the crocodile is not mentioned. The few times that *nicor*, *nicer* occurs outside of the Beowulf, it is the translation of "hippopotamus,"[4] while in the Beowulf it is some kind of sea-monster. Similarly, ONorse *nykr* is a hippopotamus, and then a sea-monster. The further development of Ger. *nixe*, Eng. *nick* need not detain us. the whole mythological superstructure arose from the misread passage in Pliny.[5]

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[1] VIII. 89.

[2] Steinmeyer and Sievers, *op. cit.*, vol. I, p. 341.

[3] *Nihus, nihhus, nichus, ibid.*, p. 348; *nihus*, p. 354; *nichus, nich hus*, p. 355; *nihhus*, p. 802, vol. III, p. 81; *nichis, niches*, p. 84; *nikes*, p. 202; *niches*, p. 366; *nichus*, p. 456; *nihhus, nichis*, p. 675.

[4] See *Zeitschrift für deutsche Philologie*, vol. IV, p. 197.

[5] The misreading of *l* is apparently due to a Visigothic text with its characteristic capital *l*, which does not differ much from a small *h*.

Most of the "lizard" words in the European languages are derived from an Assyrian word, represented by *ḥulmittu* "some kind of serpent." This is apparently already a reduction by popular etymology, so as to derive it from Assyr. *ḥullu* "bad, evil." It is more likely that it is derived from *ḥalū* "to shine," *ḥālu* "to quake, tremble," that is, that the lizard and the snake, as usual, are related both to rapid motion and to fire. In that case, Assyr. *ḥalalu* "to creep," *hallūlāia* "an insect living in caves," would belong to this group. However this may be, the derivatives of *ḥulmittu* are very numerous.

The Heb. חֹמֶט *ḥōmet*, Chald. חוּמְטָא *ḥumtāh* "lizard," which stand quite alone, are obviously derived from the Assyr. *ḥulmittu*, as though from Assyr. *ḥamaṭu* "to hasten, burn, shine, flicker," *ḥamṭu* "swift," so that it is not impossible that a similar form may have existed in Assyrian for the lizard. In Syrian we have ܚܽܘܠܡܳܬܳܐ *ḥūlmåtå* "chameleon," with a closer adherence to the Assyrian. The Chald. אַקְמְתָא *aqmĕṭā*, Syr. ܐܰܡܩܰܬܳܐ *åmqatå*, possibly Heb. אֲנָקָא *anāqā*, seem to be deteriorations of the same word. But quite certainly Gr. καλαμώτης, καλαβώτης, χαλαβώτης, ἀσκαλαβώτης, ἀσκάλαβος, γαλεώτης, κωλώτης are various corruptions of the same Semitic word. The latter, γαλεώτης, κωλώτης, show how Heb. לְטָאָה *lĕtāā*, Chald. הַצְּטָאָה *haltāā*, הֲצְטָתָא *hāltaṭā* are mere deteriorations of the same Assyrian word; and here the corresponding Arab. لحكة *luḥakaṭ*, حلكة *ḥulkaṭ* show how the Syr. *åmqatå*, Chald. *aqmĕṭā*, Heb. *anāqā* must have arisen. But they tell even more, for they show that Lat. *lacerta* cannot be separated from Ionic Gr. κροκόδειλος, and Sansk. *kṛikulāsa*, *krikalāsa* "lizard." Similarly, the Turko-Tatar *keler*, *kelăskä*, *kelas* show unmistakably that all these lizard words are related to *ḥul-* in Assyr. *ḥulmittu*.

In Syrian we have also a transformed ܫܳܡܳܡܺܝܛܳܐ *samâmīṭâ* "poisonous lizard." It is not possible to ascertain whether this already existed in Assyrian, though that is most likely, since the Assyrian root *šam* corresponds closely to *ḥam*, from which *ḥamṭu* "swift," etc., is derived. This root *šam* produces Assyr. *šamū* "to burn, boil," *šumū* "roasted meat," most likely *šamu* "heaven, sky," but, above all, *šamu* "plant, herb."[1] Küchler has shown[2] that *šammu* is a generic name for "medicinal plant, medicine," hence also "poison."[3] From the fact that it is frequently referred to as "the plant of the god of joy,"[4] it is to be inferred that an intoxicating drink was included among the medicines. This shows at once that the Vedic *soma*, in spite of the assumed etymology from *su* "to press,"[5] is derived from the Assyr. *šamu;* and the Vedic divinity *Soma*, who "caused the sun to shine, caused the lights of the sky to shine, and produced the sun in the waters, caused the sun to rise, impelled it, obtained and bestowed it, and caused the dawns to shine,"[6] is no other than Assyr. *šamšu* "the sun, sunrise," *šamaš* "the sungod," derivatives of *šamū* "heaven, sky" and related to *šamu* "plant, medicine."

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[1] I cannot enter here into the semantic development of the root. I shall only point, as an example, to Sum. *mū* "go forth, sprout. shine, hear, name." The latter meanings show that Assyr. *šemu* "to hear," *šumu* "name" also belong here. Of these I shall speak in another place.

[2] *Beiträge zur Kenntnis der Assyrisch-Babylonischen Medizin*, Leipzig 1904, in *Assyriologische Bibliothek*, vol. XVIII, p. 66.

[3] *Ibid.*, p. 137.

[4] L. W. King, *Babylonian Magic and Sorcery*, London 1896, p. 62, etc.

[5] A. A. Macdonell, *Vedic Mythology*, in *Grundriss der Indo-Arischen Philologie und Altertumskunde*, vol. III. 1. A, p. 114.

[6] *Ibid.*, p. 109 f.

We do not seem to have recorded in Assyrian a word for "lizard" directly derived from it, but the other Semitic languages prove abundantly that the correlation of "lizard" with this particular group of "to shine, sun" did exist. I have already spoken of Syr. *samåmīṭå*. Its relation to Syr. ܣܡܐ *sam* "medicine, pigment" is obvious. Although we have in Syrian ܫܡܝܐ *šmayå* "heaven" and ܫܡܫܐ *šmeš* "sun," it is only the reduced *sam* that means "medicine," which would tend to prove that the *šamu* plant was introduced at a later time from Assyria. This is borne out by Heb. סַמִּים *sammūm* "fragrance," which stands perfectly alone by the side of שָׁמַיִם *šamaim* "heaven" and שֶׁמֶשׁ *šemeš* "sun." It is only in the Talmud that we get סַם *sam* "aromatic plant, spice, medicinal powder, poison," סַמָּן *sammān* "spices," סַמָּנָא *sammānā* "spices, dyestuff," and it is here that we also get סְמַמִּית *sĕmāmīṭ*, for the Biblical שְׁמָמִית *šĕmāmīṭ* "lizard."

In the Arabic we have شم *šamma* "he smelt," شميم *šamīm* "high, elevated," شمخ *šamaḥa* "it was high," شمس *šams* "the sun," and سم *samm* "poison," سمام *samām* "light, swift," سام *sāmm* "poisoning, lizard," in which case both *šam-* and *sam-* refer to the aromatic plant, while only *šam-*, as in the other Semitic languages, gives the "sun" and "sky" words. But we have also سام *sām* "veins of gold, an ingot of gold and silver," obviously with the underlying meaning "shining," which is identical with Egyp. *asem* "electrum." But this word may in reality be of a different origin.

The Egyptian, too, has *sam* "herb," and *šem* "heat," *šemu* "the crop, summer," *šemem* "hot wind, samoom," and *šemt*, *χemt* "an intoxicating drink," *šemem* "poison." Thus, whether the Egyptian is older or younger than the Assyrian, we have the identity of *ḥam-*, *sam-*, *šam-* in Semitic and in Egyptian, with the underlying meaning "to be hot." But the Egyp. *χmm*, *χrm* shows that here, as in Assyrian, the original word for heat was a derivative from *χr* and *šr*, by a suffix *m*. This would lead us at once to the "warm" words in the Indo-European languages, which need not be discussed here. It is, however, interesting to observe here that the transposed *χmr* produces Ethiop. ‘*amīre* "day, sun," with similar derivatives for "clear, brilliant, illustrious." This at once explains Gr. ἡμέρα, derived, no doubt, from an Egyptian source. Indeed, it is quite impossible to derive Copt. *ameri*, *meri*, *meere* "midday, day" from the Greek, for the Greek word stands perfectly alone, while the Coptic and Ethiopic cannot be separated from the *χrm*, *χmm* words.

Thus, throughout Asia and in Africa, we have distinct derivatives from Assyr. *šamu* "the medicinal plant;" and in Syr. *samåmīṭå* we have a reference to the poisonous quality of the reptile, though originally, no doubt, the reference was to "fire," with which the lizard, especially the salamander, is related. It is well known that the snake and the lizard have been associated with the sun-worship, but it is not easy to tell the precise manner in which the two were brought together. Not only have we the constant story about the salamander coming unscathed through the fire,[1] but we have also the name in the *Physiologus* σαύρα ἡλιακή, "sun lizard" for the lizard, because in its old age it is supposed to become blind and bask in the sun. It may be that the well-known tendency of the saurians to stay in the sun had something to do with the relation between snake and sun-worship.

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[1] The Chinese name for the salamander is *huo shie* "fire snake."

In Persian we have the Arab. *sam* "gold and silver," *samm* "distressingly hot and pestilentially windy, death," *sāmmi abraṣ* "a large and venomous kind of lizard," and the apparently native *sam* "fire" and *samandar*, *samandir*, *samandur*, *samandal*, *samandūn*, *samandūk*, *samandūl* "salamander," which are obviously derived from some such form as Syr. *samåmīṭå*. The Gr. σαλαμάνδϱα is, therefore, derived from the East, either directly from the Assyrian, or through Syriac or Persian. The Greek and Roman conception of the salamander as a highly poisonous lizard that by its moisture puts out the fire, is quite in keeping with the semantic and morphological group from *sam* "poison, fire." The Gr. χαμαιλέων is, in all probability, only a popular transformation of a word represented by Assyr. *ḫulmittu*.

The *salamandra* has had a rich development in the Romance countries. For France alone there are recorded[1] such forms as *salamandro*, *alabranda*, *lebrando*, *labreno*, *brune*, *blanda*, while in Italian[2] we have *salamita*, *sarmandola*, *marasandola*. *Ablinda*, *abelindea*, as the name of a creeping animal, occurs in the *Laterculus*,[3] but it is not possible to ascertain whether the salamander is meant by it. The origin of Lat. *stellio* "lizard" is by Pliny ascribed to its spotted skin; but it is more likely that it is some corruption of Gr. ἀσκάλαϐος, for we have from the same Greek source such Coptic corruptions as *hakelf*, *hankelf*, *hamkelf*, and *telfi*, which shows that a form ἀστάλαϐος also existed.

On the other hand, Lat. *stellio* is related to Gr. ἀστεϱία, ἀστεϱίων. The words are rare in Greek literature, but Saumaise is right in assuming their genuineness from the juxtaposition of ἀστερία with γαλεός in a comic poet.[1] Besides, the Slavic languages and Modern Greek have many derivatives from this ἀστερία. OBulg. *jašterŭ*, from which come Čech. *ještěr*, Pol. *jaszczur*, Russ. *jaščerica*, Pruss. *estureyto*, etc., OBulg. *gušterŭ*, with similar forms in the Servian and other Slavic languages, and MGr. γούστερα, γουστερίτζα, βόστερος, βοστερίτζα, are all derived from it, even as OBulg. *jasturŭ* "a precious stone" is Gr. ἀστερίων.

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[1] E. Rolland, *op. cit.*, vol. XI, p. 21 ff.

[2] *Ibid.*, p. 24.

[3] *MGH.*, *Auct. antiq.*, vol. IX, p. 544.

In the Slavic languages we have the late Greek word for "lizard;" the Romance languages naturally show developments from the Latin. What gave to the Germanic languages the word for "lizard" which leads to Ger. *Eidechse?* In OHGerman the form varies between *edehsa*,[2] *euuithessa*,[3] and *egidehse*,[4] but it is not recorded in the Keronian glosses. In Anglo-Saxon we get from early times *ađexe*, *adexa*,[5] but also the exclusive *efete*, which is not recorded outside of England. The Germanic words for "lizard" stand completely alone among the Indo-European languages, but they certainly must be related to similar appellations somewhere. Since the word occurs in Leviticus and elsewhere in the Bible, it may have come in as a Gothic gloss, and in that case we should suspect an Arabic origin. Now we have a large number of Arabic words for the "lizard," which apparently are corruptions of a Berber word. We have Arab. عضرفوط *'adrafūt*, عذفوط *'ūdzfūt*, عسود *'iswādḍ*, عضفوط *'udfūt*, عذفوط *'udzfūt*, pl. عضافيط *'adāfīt*, عذافيط *'adzāfīt*

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[1] Claudii Salmasii *Plinianae exercitationes*, Trajecti ad Rhenum 1689, p. 532 f.

[2] *Edehsa*, Steinmeyer and Sievers, *op. cit.*, vol. I, p. 802; *eithesa*, p. 343; *aedehse*, *achsel*, p. 349; *eidochso*, p. 332; *adexta*, vol. II, p. 598; *eidechsun*, p. 671; *heidehsse*, vol. III, p. 692; *endechse*, *eudechs*, *edechs*, p. 48.

[3] *Euuithessa*, *ibid.*, vol. I, p. 354; *euuidehsa*, p. 355; *ouuedehssa*, vol. IV, p. 257.

[4] *Egidehsa*, *egidehse*, *egidesse*, etc., vol. I, pp. 349, 802; vol. II, pp. 348, 598, 606; vol. III, pp. 55, 82, 202, etc.

[5] See Hessels, *A Late Eighth-Century Latin-Anglo-Saxon Glossary*, p. 136.

"the male of the lizard called عطساء *'ātsā'*." The Berber words for "lizard" are Tuareg *aǵezzeram*, Tamazirt *azermum*, Djebel Nefusa *ašermešan*, Mzab *tašimšeramt*, Tomahek *agezzerana*, Redames *ujizzam*, Warsenis *thazermumith*. In all of these words one may perceive a lengthening of a word *adša* or *adšera*, which actually is found in Copt. *ašira* "chameleon." But this Coptic word is obviously itself a lengthening of Egyp. *āš* "lizard," or, rather, this Egyp. *āš* may itself be a shortening of a longer *ašarm*, which is found in most of the Berber languages. If this is so, we are at once brought back in Egyptian to the same word which produced Syr. *samåmīṭå*, and the identity of the "lizard" words in all the languages is established. But Copt. *ašira*, Egyp. Arab. سحلية *saḥliyyah*, would indicate an Egyptian word of a similar form, from which Gr. σαύρα would have been derived.

It is obvious that OHG. *edehsa*, *egedehsa*, AS. *ađexa*, must be related to the Berber words, through an Arabic source, for which the Arabic literary form is *'ātsā'*. But the lengthened Arab. *'aḍāfīt*, or a similar form, is responsible, by its latter part, for AS. *efete* "newt." The transference of the words from Arabic into Anglo-Saxon and OHGerman must have taken place at a time when the Berber influence in Arabic was most active, that is, in the earliest part of the eighth century. If we now turn once more to Gr. ἀστερία, Lat. *stellio*, we see that the two represent mere corruptions of the original "lizard" word, and in the light of the African development of the group, it becomes increasingly difficult to arrange the older deteriorations in any chronological order. But the absence of ἀστερία in Greek literature points to a later period, and Copt. *ašira* may have no immediate representative in Egyptian beyond the recorded *āš*, and may be an evolution of the same Gr. ἀστερία. But the Berber words go unquestionably back to a much older source, possibly to an old Egyptian word which is directly related to the Asiatic "lizard" words.

XXVII. THE WEASEL.

The *Physiologus* tells of the *weasel* that she conceives through the mouth and, remaining a virgin, bears her young ones through her ears.[1] The great majority of the versions about the weasel finish with a reference to the asp that closes her ears to the enchantment of the snake-charmer,[2] which in later Bestiaries is developed into a separate chapter.[3] As the mythical *Marsi* were in Latin antiquity considered to be snake-charmers,[4] it was only natural to connect the charming of the asp with the *Marsi*;[5] while the juxtaposition of the weasel and asp is due to traditional enmity of the two,[6] although in the *Physiologus* the relation is not clearly brought out.

The weasel by tradition was a virgin, hence we have Ger. *fräulein*, *jungferchen*, Dan. *brud*, Ital. *donnola*, Port. *doninha*, Sardinian *dona de muru*, Ruman. *nevastuica* (bride),[7] MGr. νυμφίτζα, Turk. *gelindžik* (little fiancée), Magy. *hölgy-menyét* (bride-weasel), Bulg. *nevestulka* (little bride), *popadijka* (priest's wife),

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[1] A. Karnyeev, *op. cit.*, p. 288 ff.

[2] *Ibid.*, p. 290.

[3] M. Goldstaub and R. Wendriner, *Ein Tosco-Venezianischer Bestiarius*, Halle a. S. 1892, p. 298.

[4] S. Bochart, *op. cit.*, vol. II, col. 384 ff.

[5] "Mustella quippe, sicut physici perhibent, per os quidem concipit, sed per aurem parit. . . . Nam cum eam (the asp) ad os speluncae *marsus*, ut egrediatur, incantat, illa protinus unam aurem terrae strictius imprimit, alteri caudam velut impenetrabile sufflamen opponit," Petrus Damianus, *De bono religiosi status*, cap. XVII, in Migne, *P. L.*, vol. CXLV, col. 777 f. «Ὄφις δὲ γαλῆ καὶ ὗι πολέμιον,» Aristotle, p. 609 b; «μάχεται δὲ καὶ τοῖς ὄφεσι μάλιστα τοῖς μυοθήραις διὰ τὸ καὶ αὐτὴν τοῦτο τὸ ζῷον θηρεύειν,» *ibid.*, p. 612 b.

[6] "Sicut in terra mustela serpentes (persequitur)," Pliny, XXXII. 25.

[7] *Archivio glottologico italiano*, vol. II, p. 50 f.

Gipsy *borí* (bride),[1] Albanian *nus e ljaljese* (brother's bride),[2] Arab. ابن عرس *'ibnu 'irsin* (son of a woman, cf. عروس *'arūs* "bride"). It is this identification of the weasel with a young woman which has led to the many words of endearment in which it is represented as a pretty maid, such as Ger. *schönthierlein*, *schöndinglein*, Armoric *coantic* (pretty one), *caerell* (little pretty one), *propic* (neat one), and the vast number of Romance words derived from OFr. *bele* "pretty," such as OFr. *belette*.[3]

Marsus very early came to mean "snake-catcher." The Graeco-Latin glosses have *Marsus* ϑηϱιοδήϰτης "biter of animals," *Mars* ἀσπιδοϑήϱας, ὀφιοδιώϰτης, *Marsio* ὀφιοδιώϰτης.[4] That this *marsio* ὀφιοδιώϰτης was taken to be the weasel is well brought out by "ophiomachus" of Leviticus XI. 22, which the Germanic glosses generally translate by "stork," once by "sea otter," and once by "migale," that is, "shrew-mouse."[5] *Mars* naturally led to the diminutive *martola* "weasel," recorded in the *Hermeneumata Einsidlensia*[6] as *maptola*, apparently from a Greek original. What aided in the transference of *marsa* to *marta*, was the fact that in the Graeco-Latin glosses *marita* is translated by νύμφη; hence the universal appellation of the weasel as "the bride," which led in Greek to νυμφίτζα, in Arabic to *'ibnu 'irsin*, at once produced the form *marta*, the Spanish name for the "weasel." The diminutive *martola* produced in Arabic the hybrid

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[1] G. Meyer, *Etymologisches Wörterbuch der albanesischen Sprache*, Strassburg 1891, p. 52.

[2] J. G. v. Hahn, *Albanesische Studien*, Jena 1854, part III, p. 86.

[3] E. Rolland, *op. cit.*, vol. I, p. 51 ff., vol. VII, p. 114 ff., and *Archivio glottologico italiano*, vol. II, pp. 46–52.

[4] Goetz, in the Index. Also *marsa* in Ducange.

[5] "Opimachus .i. ciconia stork," Steinmeyer and Sievers, *op. cit.*, vol. I, p. 343, similarly p. 348, vol. III, pp. 23, 248, 463, "merinadra, nadaruuinda," vol. IV, p. 206, "simił. migał. hauuigrimmila," vol. I, p. 802.

[6] Goetz, vol. III, p. 259.

عروسالة *'arūsāllah* "mustela,"[1] where the derivation from عروس *'arūs* "bride" is obvious. This Arab. عروسالة *'arūsāllah* seems to mean "God's bride," but Dozy[2] is probably right in assuming that we have here a Spanish ending. It is not impossible that Arab. عرسة *'arsah*, عروسة *'arūsah* "ferret" arose in Spain from Lat. *marsa* ὀφιοδιώκτης by popular etymology, *marsa* being considered an *m* derivative of عرس. This is most probable, since we have also the very queer مقرض *miqrad*, by the side of قرض *qard* "ferret," which seems to have been formed inversely, in order to get a parallel to the older word. The very denomination "bride" for the weasel must have arisen through the Arabic etymology of *marsa*, for we have no older reference to "bride" than in Arabic. The Gr. νυμφίτζα is responsible for the "bride" words in Gipsy and the Balkan languages; but νυμφίτζα is not recorded before the tenth century, and the name for the "ermine" κακούμ is certainly Arabic, which leads to the assumption that it itself owes its origin to the Arabic etymology. All the other "bride" words have similarly spread over Europe from the Arabs in Spain. In any case Spain is the country where the word *marta* entered LLatin in the sense of "weasel," or, more correctly, of "ferret." Here, again, we have not only Span. *marta*, *martaraña* "weasel," but also *garduña*, from the Arab. قرض *qardun*, which once more shows that the Spanish etymology produced Span. *marta*, from LLat. *marita* νύμφη.

[1] Ch. F. Seybold, *op. cit.*, p. 327.

Supplément aux dictionnaires arabes, Leyde 1881, sub عرس.

Ducange records *martha*, *martarus*, *martalus*, *martores*, *martures*, *martira*, *martrae*, *martrinae*, *mardolum*, *mardores*, *mardrinus*, *mardubina* for "weasel" or "weasel fur." The earliest mention, in the eighth century, is, however, in the Anglo-Saxon form *mearth*, *mearđ*, *meard* as the translation of "furuncus, furunculus."[1] "Furo," apparently as the name of the ferret, occurs for the first time in Polemius Silvius, supposedly of the fifth century,[2] and later in Isidore. Most likely it is a transference of the meaning "thief," for which *furo* was the Low Latin word, to the weasel, for the usual conception in patristic literature was that the weasel was a thief.[3] The diminutive *furetus* produced Fr. *furet*, while *furuncus* has remained without any derivatives. The Anglo-Saxon word, which seems to rest on a Gothic prototype, to judge from its final consonant, did not become popular in OHGerman. *Mard*, *marth* is recorded only in the XIII. century, while the longer form *mardero*, glossed by Lat. *martus*, *martarus*, itself a rare word,[4] at once betrays its borrowing from the Low Latin form.

The Lat. *mustela* "weasel" is of unknown origin, but it is not impossible that we have here a combination of *mus* + *tela*, as in Gr. μυγάλη "shrew-mouse" we probably have μῦς + γαλῆ. It is also quite probable that *tela* and γαλῆ are derived from the same Mongol origin as Pers. *dala* "weasel, fitchet, stoat," *dalla* "ermine," Arab. ضلق *dalaq* "weasel." G. Jacob[5] has already observed that the Arabic and Persian words are identical with Tunguz *dsölöki*,[1] Manchu *soloki* "ermine," Mongol. *solongga*, *solonggo* "Siberian polecat," Manchu *jelken* "marten." To these may be added Tunguz (near Baikal) *jelek*, Lamut *deliki* "ermine"[2] and Vogul *Šolši* "ermine."[3]

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[1] J. H. Hessels, *A Late Eighth-Century Latin-Anglo-Saxon Glossary*, p. 118.

[2] *MGH., Auct. Antiq.*, vol. IX, p. 543.

[3] "Mustela est furti figura, ut in Levitico demonstratur," Rabanus Maurus, *De universo*, VIII. 2, in Migne, *P. L.*, vol. CXI ,col. 226.

[4] H. Palander, *Die althochdeutschen Tiernamen*, Darmstadt 1899, p. 58 f.

[5] *Welche Handelsartikel bezogen die Araber des Mittelalters aus den nordisch-baltischen Ländern?*, Berlin 1891, p. 37 f.

Here we have distinctly a Tunguz word, and the Greek, Latin, and Arabic words refer to a time when the chief source of the ermine was the region of the Yenisey, even as we know that the Chinese received their furs from that locality.[4] It is, therefore, highly probable that both Gr. γαλῆ and Lat. *mustela* are derived from a Tunguz *dželaki*.

The common weasel, according to Pallas,[5] is called at the Yenisey *tschoel-ass*, which he translates as "ermineum viaticum." *As* is, indeed, the usual Tatar word for "weasel," and *tschoel-ass* may be the original of Tunguz *dželaki*, etc., or is a popular transformation of the word. As we proceed westward the word becomes more and more corrupt. We have Jukagir *alatschawò*, Kazan Tatar *lahtschae*,[6] Esthonian *lahits*, *laits*, *lazits*, *laznits* "ermine, marten,"[7] Permian *lassiza*, Syryenian *laschiza*,[8] OBulg. *lasica*,[9] Russ. *lastka*, etc. From a thirteenth century document we learn that Bulgaria, that is, the region of the Volga, was the country from which ermine, sable, and *letisse* were obtained;[10] but

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[1] "*Dželaki, dželeki, jeloky, jeluky*, A. V. Starčevski, *Sibirski perevodčik*, S.-Peterburg 1893, p. 243.

[2] P. Pallas, *Zoographia Rosso-Asiatica*, Petropoli 1831, vol. I, p. 91.

[3] A. Ahlquist, *Wogulisches Wörterverzeichnis*, Helsingissä 1891, p. 53.

[4] G. Jacob, *op. cit.*, Supplement, p. 7 f.

[5] *Op. cit.*, p. 95.

[6] *Ibid.*

[7] F. Wiedemann, *Ehstnisch-deutsches Wörterbuch*, St. Petersburg 1893.

[8] Pallas, *op. cit.*, p. 95; but the last two may be mere Russian words. So in J. Kalima, *Die russischen Lehnwörter in Syrjänischen*, Helsingfors 1911, p. 75.

[9] The confusion of γαλῆ with γαλεώτης leads to a similar confusion in OBulgarian, where *lasica* is also recorded as "lizard."

[10] "Dou royaume de Bougerie vient vairs et gris, hermine, sable et *letisse*," K. Höhlbaum, *Hansisches Urkundenbuch*, Halle 1882–1886, vol. III, p. 420.

OFr. *letice*, *lectice*, *laitisse*, *lestote*[1] are the names of the "weasel." We have also MLG. *lasten*, *lassicz*, *lassiczin*,[2] *lasteken*[3] "the Siberian weasel," while OFr. *lestote* has produced Eng. *stoat*, *stote* "weasel, polecat."

Although the usual Tatar appellation for the ermine is *ak-as*, lit. "white weasel," we just as frequently have *kara-kuijerok*, *kara-kuzuruk* "black tail," because the main characteristic of the ermine is its black-tipped tail, which is always preserved in the fur. The Tatar *kuzuruk*, *kuzruk*, especially the western forms *kujruk*, *kūruk*, *köjörök*,[4] are unquestionably responsible for Gr. κέρκος "tail." I. Bekker[5] quotes from a Greek glossary a scholium to the Σοφισταὶ of Plato, the comic poet, a contemporary of Aristophanes, to the effect that κέρκος is a barbarous, Asiatic word,[6] and this assumption is borne out by the fact that it stands quite unrelated in Greek.

We have no evidence that the Greeks knew anything of Siberian furs, but we are acquainted with the Tatar name of the weasel long before the Arabic trade made it common in Europe. We have in the Talmud כַּרְכּוּשְׁתָּא *karkūšṭā*, Syr. ܟܳܟܽܘܫܛܳܐ *kåkūšṭå* "weasel." In the Syriac *Physiologus* the latter is the translation of γαλῆ. The Semitic word is apparently a corruption of Tatar *kara kuzruk* "black tail," which passed from the east to the west in a large number of variations. We have Yakut *kyrynas*, which seems to be a popular transformation, as though from *kyry* "grey" and Tatar *as* "weasel." The Yakut country is still the chief source of the supply of ermine. *Kyrynas* itself aided in the formation of Russ. *gornostaj*, *gornostal*, Čech *hranostaj*, *chramostýl*, etc., "ermine." We have Vogul *kunasi*, *küińus*, *quinus* "marten,"[1] which would indicate that Pol. *kuna*, Russ. *kunica* are really the same word as *gornostaj*, with which the animal is confounded. Esthonian *niŕk*, *niŕgi*, *nürk* "weasel," as the quality of the *r* indicates, may have originally been *nišk*, and so may itself be a corruption of the Yakut word. This Esthonian *niŕk* produced Russ. *norok*, *norka*, Pol. *nurka* "mustela nivalis," Ger. *norz*, *nerz*, *nörz*, *nürz*, *nurz* "fishotter." Of course, the Russian may be the original, while the Esthonian is borrowed from it. But we have a large number of Uro-Altaic words in which the first part of the Yakut *kyrynas* has been preserved. Such are Esthonian *käŕp*, *käŕk*, *käŕbi*, *kärt*, *kardi* "weasel," Koibal *kyrrol*, Ostyak *kur*, *kor*, *kurru*, Kamassinian *khürö*, Finnish *kärppä*, Yenisey Ostyak *kulap*, Kottian *hulup* "weasel, small ermine," Votyak *jürmäk* "weasel," Russ. *chorek*, *chorjuk*, Pol. *tchórz*, Čech *tchoř* "polecat."

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[1] E. Rolland, *op. cit.*, vol. VII, p. 145, vol. I, p. 63.

[2] K. Höhlbaum, *op. cit.*, vol. III, in Vocabulary.

[3] Schiller and Lübben, *Mittelniederdeutsches Wörterbuch*, Bremen 1875–81, L. Stieda, *Ueber die Namen der Pelzthiere*, in *Altpreussische Monatsschrift*, vol. XXIV, p. 629.

[4] N. F. Katanov, *op. cit.*, p. 69.

[5] *Anecdota graeca*, Berolini 1814, vol. I, p. 103.

[6] «Κέρκους τὰς οὐρὰς οὐκ οἴονται δεῖν λέγειν. Ἐπιχωριάζει δὲ κατὰ τὴν Ἀσίαν, βάρβαρον μέντοι νομίζεται.»

We have no means of ascertaining the Bulgar word for the "weasel" at the time the Arabs traded with the peoples along the Volga, but the great variety of corresponding words in Arabic would indicate that it was as variable as the Esthonian word. We have قرض *qard*, قرظ *qarts*,[2] قرقدون *qarqaḍūn*, قرقذون *qarqadzaun*,[3] كلكس *kalkusa*,[4] *qāqūn*,[5] and the interesting قاقم *qāqum*, which became the standard word for "ermine"[1] wherever the Arabic language was known. This latter word is in Georgian *qarqumi*, which, no doubt, is the older form. The forms beginning with *qar* show the Tatar *kara*, as is plainly brought out in the plural of Arab. قرقدون *qarqaḍūn*, which is قراقدين *qarāqaḍīn*.

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[1] Ahlquist, *op. cit.*, pp. 18, 22.

[2] R. P. A. Dozy, *Dictionnaire détaillé des noms des vêtements chez les Arabes*, Amsterdam 1845, p. 287.

[3] Dozy, *Supplément*.

[4] K. Ahrens, *op. cit.*, p. 62.

[5] G. Jacob, *op. cit.*, p. 39.

Kluge says that Ger. *hermelin* "ermine" is identical with OHG. *harmo*, AS. *hearma* "weasel," that the word is lacking in the other Old Germanic languages, but that on account of Lith. *szermů* "weasel, ermine" (Lith. *sz* for Sansk. *ś*, Indo-Ger. *k*, hence Ger. *h*), its pure Germanic origin cannot be doubted. The Fr. *hermine*, Ital. *ermellino* are, according to him, derived from LLat. *mus armenius*, for the older *mus ponticus*, while Raeto-Romanic *carmuṅ* proves the existence of an older European *carmōn*.

Nearly everything is wrong in that statement. OHG. *harmo*, AS. *hearma* are not once rendered by "weasel," but always by "shrew-mouse." There is no use adducing a phonetic correspondence in Sanskrit or Indo-Germanic for a word that, like the animal for which it stands, was not found in any southern latitude. The Romance languages cannot have chosen an identical name for the Siberian weasel from another source than did the Germans. *Armenia* has nothing to do with the weasel, since it is not found there and since the *mus ponticus* is not a weasel, and the weasel is referred to as the mortal enemy of the *mus ponticus*.

The first datable mention of *harmo* is found in the ninth century commentary of Walafrid Strabo to Leviticus, where the Biblical "migale" is glossed "quidam dicunt *haramo*."[2] Walafrid's gloss is based on a misunderstanding of Rabanus Maurus' definition of

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[1] *Ibid.*, p. 38 f.

[2] Steinmeyer and Sievers, *op. cit.*, vol. I, p. 341.

"migale." Rabanus says: Mustela enim animal est dolosum et valde furti vacans. Mus propter ventris ingluviem multa quotidie pericula sustinet..... *Migale* animal est compositum, non natura sed vitae conditione ad deridendum aptum, id est, ut dolos faciat, ea rapiat, ventremque repleat: propter quod compositum nomen accepit ex utroque animali, ex quo haec habet vitia."[1] Rabanus did not tell what the "migale" was, because he probably did not know himself. He only expatiated on the composite nature of the word from μῦς and γαλῆ, and so ascribed to it the double nature of a mouse and weasel. Walafrid epitomized the statement in two sentences: "Mygale quidam dicunt *haramo*.... Mygale dicitur quasi mus gulosus."[2] It is obvious that he identified the "mygale" with the γαλῆ, and so quoted *haramo*, which he knew from hearsay or from some literary reference. But all the glossators, with one single exception, both in German and Anglo-Saxon, understood Walafrid to identify the *haramo* with the μυγάλη "the shrew-mouse," and so invariably glossed it by "mygale"[3] or "nitedula."[4]

The one exception is *Codex St. Gall. 295* and its copies,[5] where we get the full history of the blunder perpetuated by Walafrid and all the later glossators. Here we have: "Migale quadrupes sed tamen ignotum nobis. aut aliter migale mus longa. *haramo*. ut quidam uolunt."[6] In *Codex St. Gall. 9* it simply says: "Migale. mus longa. *haramo*. ut quidam uolunt."[7] These codices are ascribed to the IX. century, and obviously are the sources of Walafrid's statement. The writers of these codices could not identify the "migale," but thought that it might be the "mus longa," which, according to Isidore, is the meaning of "mustela," and so they quoted *haramo*, "which others identified with the migale." These glossators themselves did not advance beyond the Anglo-Saxon glosses of *Codex St. Gall. 254*, where under "migale" we have "modicus quasi cattae," "a small animal of the size of a cat," and "ignō nisi similis est camelioni. camelion similis est lacertae tamen sub aspectu motat colores."[1]

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[1] Migne, *P. L.*, vol. CVIII, col. 361 f.

[2] *Ibid.*, vol. CXIV, col. 816.

[3] Steinmeyer and Sievers, *op. cit.*, vol. I, pp. 348, 352, vol. III, pp. 35, 53, 55, 201, 247, "quasi gulosus" 320, 444, 445, 446, 453, 626, 627, 674, 685, vol. IV, p. 205.

[4] *Ibid.*, vol. II, p. 377, vol. III, pp. 36, 674, 692. For the AS. *hearma* words see J. H. Hessels, *A Late Eighth-Century Glossary*, p. 154.

[5] Steinmeyer and Sievers, *op. cit.*, vol. I, p. 341 ff., H. Hattemer, *Denkmahle des Mittelalters*, St. Gallen 1844–1849, vol. I, p. 224 ff.

[6] Hattemer, *op. cit.*, p. 227.

[7] *Ibid.*, p. 233.

It is only in the IX. century that *haramo* makes its appearance at St. Gall. Now it is significant that it is in the neighborhood of St. Gall, at least in the Raeto-Romanic part of Switzerland, that *karmuṅ* "ermine, weasel" is preserved. This *karmuṅ* is obviously a transformation of Arab. قاقم *qāqumun* (Georgian *qarqumi*), the mercantile term for the "ermine," even as the variation قرض *qardun* or قرقدون *qarqaḍūn* has produced Span. *garduña*. But the Raeto-Romanic *karmuṅ*, which in Arabic would be, without the article, *qarm*, produced OHG. *charmo* or *harmo*. It remained for a long time a puzzle to the Germans, until the Latinized forms "*hereminae*, *arminiae*, *armerinae* pelles" of the XII. century caused them to consider "migale" as the equivalent of "weasel"[2] and to adopt *harm* definitely as the term for the imported "ermine."

Although the wide distribution of the words derived from *harm* is unquestionably due to the Arabic trade, they could have been derived directly from the Slavic, such as Čech *chramostyl*, by apocopation, but there is no evidence that they were gotten in that manner. The introduction of Lith. *szarmů*, to prove the antiquity of the word in Europe, is quite useless, for we have also the longer form *szarmonys*, which is obviously a corruption of Lett. *sermulis*, *sarmulinsch*, itself a corruption of *ermelihns*, borrowed from the German. The *sz* is not an ancient correspondent to Ger. *h*, etc., but Lett. *sarmulinsch*, Lith. *szarmonys* are mere popular etymologies, as though the words were derived from Lett. *sarma*, Lith. *szarma* "white frost," on account of the color of the ermine.

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[1] *Ibid.*, p. 10.
[2] See Ducange, sub *megalina.*

XXVIII. GLAESUM.

We have in Solinus: "Nam *Glaesaria* dat crystallum, dat et sucinum, quod sucinum Germani gentiliter vocant *glaesum.* Qualitas materiae istius summatim antea, Germanico autem Caesare omnes Germaniae oras scrutante conperta: arbor est pinei generis, cuius mediale autumni tempore sucino lacrimat. Sucum esse arboris de nominis capessas qualitate: pinum vero, unde sit gignitum, si usseris, odor indicabit. Pretium operae est scire longius, ne Padaneae silvae credantur lapidem flevisse. Hanc speciem in Illyricum barbari intulerunt: quae cum per Pannonica commercia usu ad Transpadanos homines foret devoluta, quod ibi primum nostri viderant, ibi etiam natam putaverunt. Munere Neronis principis adparatus omnis sucino inornatus est: nec difficulter, cum per idem tempus tredecim milia librarum rex Germaniae donum ei miserit. Rude primum nascitur et corticosum, deinde incoctum adipe lactentis suis expolitur ad quem videmus nitorem. Pro facie habet nomina: melleum dicitur et Falernum, utrumque de similitudine aut vini aut utique mellis. In aperto est quod rapiat folia, quod trahat paleas: quod vero medeatur multis vitalium incommodis, medentium docuit disciplina. Et India habet sucinum, sed Germania plurimum optimumque. Quoniam ad insulam Glaesariam veneramus, a sucino coeptum."[1] This passage is based on the following passages in Pliny: "Contraria huic causa crystallum facit, gelu vehementiore concreto. Non aliubi certe reperitur quam ubi maxime hibernae nives rigent, *glaciem*que

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[1] XX. 9–13.

esse certum est, unde nomen Graeci dedere. Oriens et hanc mittit, quoniam Indicae nulla praefertur."[1] "Certum est gigni in insulis septentrionalis oceani et ab Germanis appellari *glaesum*, itaque et ab nostris ob id unam insularum *Glaesariam* appellatam, Germanico Caesare res ibi gerente classibus, Austeraviam a barbaris dictam. Nascitur autem defluente medulla pinei generis arboribus, ut cummis in cerasis, resina in pinis erumpit umoris abundantia. Densatur rigore vel tempore ac mari, cum ipsum intumescens aestus rapuit ex insulis, certa in litora expellitur, ita volubile, ut pendere videatur atque non sidere in vado. Arboris sucum esse etiam prisci nostri credidere, ob id sucinum appellantes. Pinei autem generis arboris esse indicio est pineus in adtritu odor et quod accensum taedae modo ac nidore flagrat. Adfertur a Germanis in Pannoniam maxime provinciam, et inde Veneti primum, quos Enetos Graeci vocaverunt, famam rei fecere proximique Pannoniae et agentes circa mare Hadriaticum. Pado vero adnexa fabula est evidente causa, hodieque Transpadanorum agrestibus feminis monilium vice sucina gestantibus, maxime decoris gratia, sed et medicinae; creditur quippe tonsillis resistere et faucium vitiis, varie genere aquarum iuxta Alpis infestante guttura hominum. DC M p. fere a Carnunto Pannoniae abesse litus id Germaniae, ex quo invehitur, percognitum nuper, vivitque eques R. ad id comparandum missus ab Iuliano curante gladiatorium munus Neronis principis. Qui et commercia ea et litora peragravit, tanta copia invecta, ut retia coercendis feris podium protegentia sucinis nodarentur, harena vero et libitina totusque unius diei apparatus in variatione pompae singulorum dierum esset e sucino. Maximum pondus is glaebae attulit XIII librarum. Nasci et in India

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[1] XXXVII. 23.

certum est."[1] "*Glaesaria* a sucino militiae appellata, barbaris Austeravia, praeterque Actania."[2]

The first passage in Pliny is apparently all genuine and was known to the Arabs, with whom it gave rise to a curious error. "Unde nomen Graeci dedere," of course, refers to "crystallum," since Gr. κρύσταλλος means "ice," hence "crystal;" but the preceding "*glaciem*que esse certum est" led the incautious reader to assume that *glacies* was the Greek word for "crystal." In the German glosses we read[3] "vitrum, electrum *glas*," and it can be shown that this is derived through an Arabic source. The original meaning of *glas* was "amber," as stated in Pliny, and only the juxtaposition, "Glaesaria dat *crystallum* dat et *succinum*," of Solinus led to the expanded meaning of *glas*.

In Arabic we do not have the word recorded as "amber," but as "amber-colored." We have غلس *galas* "the darkness of the last part of the night, when it becomes mixed with the light of dawn, blackness mixed with whiteness and redness, like the dawn." That this is not originally an Arabic word follows from the fact that it was misread غبس *gabas* "the darkness of the end or last part of the night, whiteness in which is duskiness or dinginess, a color between black and yellow," and غبش *gabaš* "the remains of darkness mixed with the whiteness of daybreak." Indeed, Qazwīnī says of the amber, "it is a yellow stone which shades into white and sometimes into red."[4] The main idea of Arab. *galas* is "black passing into white, dawn color," etc. We have this represented in OHG. "glaucus

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[1] XXXVII. 42-46.

[2] IV. 97.

[3] In Graff, sub *glas*.

[4] K. G. Jacob, *Neue Beiträge zum Studium des kaspisch-baltischen Handels im Mittelalter*, in *Zeitschrift der deutschen morgenländischen Gesellschaft*, vol. XLIII, p. 373.

glasa,"[1] in Ir. *glas* "green, blue, grey," Bret. *glas* "green, blue, white, pale," *glisi* "sickliness." That *glas* was not a Germanic word, any more than it was Celtic, appears from the misreading *gler*, found in all the Germanic languages. We have in OHGerman: "bdellium, ipsius naturae quae gummi *gler*,"[2] where it obviously means "amber." We have also ON. *glas* and *gler* "glass," AS. *glaes* "glass," *glaer* "amber." It is clear from the variations, both in sound and meaning, that we have here originally a book word. That this *gler* was originally *glas*, appears from its survival in OProv. *glassa*, *classa* "gum arabic."

But we have far more urgent proofs of the greater antiquity of the Arabic word. Arab. *galas* means also "daybreak, cockcrow," and the verb from it means "to perform the prayer at daybreak." There is also the derivative تغلس *ṭagallus* "calamity, misfortune, evil." The origin of this derivative is, according to the Arabic lexicographers, explained from the fact that a predatory incursion took place early in the morning. This derivation is justified, for the poet El-Kumait says, "and we gave as a morning-drink to the people of Nejran a troop of horsemen making a raid against them."[3] As this poet lived in Arabia in the early part of the VIII. century, we certainly have here described an Arabic, and not a foreign, custom. Hence the application of the verb غلس *galasa* to the terrible raids in the West can be only of Arabic origin.

Now, we have OFr. *a glais*, *a glas* to represent terror.[4] We have similarly Prov. *aglay*, as in "gieton cristias *a glay*, they threw the Christians into terror." That

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[1] Steinmeyer and Sievers, *op. cit.*, vol. II, p. 716.

[2] *Ibid.*, vol. I, p. 319.

[3] Lane, sub غلس.

See Godefroy for quotations.

aglay, *aglas* were originally one word is proved by Valencian *aglay*, Span. *aglayo* "sudden terror." From this developed the shorter forms OFr. *glas*, *glais*, *glage* "noise," *glai*, *glay*, *gloi*, *clai* "noise, confused sounds of joy, joy," OProv. *clas* "cry, noise," *glay* "terror, pain, fright," Cat. *glay* "sudden terror." *Aglay* was understood to be a compound, giving rise to OFr. *ad un glais*, *ad un glat*, OProv. *ad un glay*, *ad un clas* "all at once, unanimously." *Aglay* also gave rise to Cat. *esglay*, *eslay*, OProv. *esglai* "terror, fright, pain," *esclat*, *esglat* "terrible fall, noise," *esglayer*, *esglaziar*, *englaziar* "to frighten, torment," hence OFr. *esclace*, *esclache*, *esclat*, *esclice* "eclat, terrible noise," hence *glatir* "to make a noise, bark." It is not necessary to go into the enormous mass of derivatives from this family. The almost total absence of such words from Italian shows that they are not of Romance origin. About the eleventh century there arose a confusion with Lat. *classicum* "the sound of the tuba," which led to a series of LLatin words, *glassum*, *classum* etc., which mean "ringing of the bells at a funeral or in alarm," for which one may find ample quotations in Ducange.

In the Germanic languages the Arab. *galas* became confused with another Arabic word, and led in each language to a totally different development. In Gothic we have *aglus* "heavy, oppressive," *aglō*, *agliþa* "oppression, sorrow," *aglaitei* "impropriety," which is also found in AS. *egle* "oppressive," *eglan* "cause pain." Here, as in the Romance languages, the final *s* dropped off or gave way to *t*. But in ASaxon and OHGerman there arose a confusion with the Arabic word which led to the "physician" words.

The Egyptian has *rek*, *lek* "to cease, stop, stop pain, cure," hence we get the Coptic words *lōž*, *lōži* "cessare, convalescere," *lo* "desistere, cessare, sanari, convalescere." Greek medicine considered the glutinous plaster[1] as one of the chief methods for stopping pain of an inflammatory character, and this, no doubt, goes back to an Egyptian practice. Hence, in Coptic *ložt* means "adhaerens, agglutinatus," *lazte* "lutum, coenum." For the Arabic forms we must also consider the Coptic forms *ložf* in *afložf* "desistit se, cessavit, convaluit," *alok* "cessa, abstina te," etc. From these are derived in Arabic, and in Arabic only of all the Semitic languages, علج *'ilaǵ* "a thing with which one treats a patient medically or curatively," hence, as an infinitive, "to labor, strive, struggle, contend, prepare for use, treat," اعلج *'ilǵ*, plur. علاج *'alāǵ* "strong, robust, barbarian, one who abandons himself to criminal passions, an infidel."

As the ASaxon has the most interesting forms from this Arabic word, I shall treat them first. From Arab. *'alāǵ* we have *aglāēca*, *aglēca*, etc., "a miserable being, wretch, miscreant, monster, fierce combatant," *aglāc* "misery, grief, trouble, sorrow, torment," while Arab. *'ilāǵ* produces early *lāēce* "medicus." The OHG. "*aigilaihi*, *eikileihhi*, *eingilihi* falanx," already found in the Keronian glosses, shows how Arab. *a'lāǵ* "a lot of brutal combatants" was misunderstood by the glossator. It was treated as a compound, *leih* arising from it in the sense of "combat;" for later we find the compounds *rangleih* "palaestra" and *sancleih* "carmen," originally "a song contest," hence *leih* "modus cantandi." Corresponding to AS. *lāēce* "medicus," we have Goth. *lēkeis*, OHG. *lāhhi*, ONorse *laeknari* "physician," OBulg. *lěkŭ* "medicine," OIrish *líaig* "physician." The Arab. *a'lāǵ* is also represented in ASaxon as *orlag* "war, fate," AS. *orlaeg*, *orleg* "fate,"

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[1] *Claudii Galeni opera omnia*, in *Medicorum graecorum opera quae exstant*, Lipsiae 1826, vol. XI, p. 634 ff.

orlege "war, strife, a place of hostility," OHG. *urlac* "fate," *urliugi* "bellum, tempestas," ONorse *örlög* "fate." Hence we have also the shorter ASaxon form *lāc* "battle, struggle" by the side of *lāc* "medicine," and *lācan* "to swing, wave about, play," Goth. *laikan* "to jump," *laiks* "dance," *bilaikan* "to scorn," OBulg. *likŭ* "dance," *lěkŭ* "kind of game."

The secondary meanings, *lāc* "offering, sacrifice, oblation, gift, favor, service," illustrate the fact, so often met with in the vocabularies, that the connotations, as well as the forms, are frequently due to blunders pure and simple. An old ASaxon vocabulary has "elogia *laac*." The preceding word is "elogiis verbis," which makes it certain that *laac* here meant "song," as in OHGerman. Indeed, the Latin vocabularies give "*elogia* pars carminis, genus versuum, laudes electae." It may even be that Lat. *elogia*, *elegia* has something to do with the turning of *leih* from "combat" to "song." But we shall soon see that even without such an influence the Arabic word led to such a change. The ASaxon glossator, however, misunderstood *elogia* as *eulogia*, which I have shown to have had the meaning of "housel, gift," etc.[1] Hence, in another part of the same vocabulary he wrote "exenium *laac*." Thus arose the meanings which are totally strange to the word.

It can now be shown by documentary evidence how the Arabic word which meant "barbarous warriors" came to be so widely accepted in the Germanic languages.

The Morris dance, as practised in England in the sixteenth century, is identical with the *moresque* or *morexe* of France of the fifteenth century, when men dressed in furs and masks performed warlike dances. The name shows conclusively that the game was supposed to be of Arabic origin. Now, we have an account of the Arabic practice of going to combat in masks in the Pseudo-Turpin. We are told there (cap. XVIII) how Charlemagne's cavalry was met by the enemy's infantry, which advanced "having very much bearded, horned masks, just like demons, and holding in their hands tympanums which they beat mightily." The horses became so frightened that they could not be restrained, and only after they were blindfolded could they be induced to go forward.

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[1] *Contributions*, vol. I, p. 205 f.

When we next hear of the Arab battle mummery, we hear of it as a *Gothic game.* Constantinus Porphyrogenitus[1] tells how the *Gothic game* is played at the court during the Christmas holidays. The Master of the Venetian faction stands to the left of the hall, surrounded by musicians. Behind him are two Goths in fur mummery and masks, with shields in their left hands and sticks in their right hands. The same is done by the Green faction, on the right. They rush in with a great noise, striking their shields, and shout *Tul tul.* They form into battle array and recite the so-called Gothic songs, accompanied by music. The song is antiphonal and abecedarian, consisting of stanzas of four lines, through the letters of the alphabet. At the end of the song, they say, "God make your reign long." Then they again strike their shields with their sticks, and calling *Tul tul*, make their exits on the run, the Venetians from the left, the Greens from the right. It is not easy to determine the words which the Goths are using. Most of them, like *gauzas*, the first mentioned, seem to be Latin or corrupt Latin words. It is possible, therefore, that the language used by them is that of the Spanish Mozarabs, that is, Catalan, with an admixture of Arabic words. This is made the more plausible, since the *tul tul* of the Goths, which they say in the beginning, and twice after Constantinus mentions the πολυχρόνιον, that is, the wish of a long life, (even as Codinus distinctly explains that πολυχρονίζειν means to wish «εἰς πολλὰ ἔτη»),[1] is apparently the Arab. تال تولوك *ṭāla ṭūlūka* "may thy life become long." Similarly, when the Master addresses the Goths with ἀμπαατῶ, to which the Goths answer *tul tul*, he says to them, ابقاه *'abqāhu* "may (God) make him to continue in life," a usual Arabic greeting. Certainly, whatever the meaning of the words may be, the Goths who were present at the Byzantine court in the tenth century can have been only Spanish Goths.

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[1] *De cerimoniis aulae byzantinae,* I. 83, in *Corpus scriptorum historiae byzantinae,* vol. VIII, p. 381 ff.

However it may be, we see that the war game, as mentioned in Pseudo-Turpin, by the tenth century was changed into a mummery, in which antiphonal songs and dancing played an important part. That such a change already existed at the end of the eighth century is proved by the meanings which Arab. *'alāǵ* led to, through "a band of sturdy fighters" to "dance, song," etc.

Just as we find OFr. *glat* developing from *glas*, and semantically *briller* from *beryllus*,[2] so we get in ASaxon *glaed* "shining, bright" from *glas* "vitrum." This leads to "glad, cheerful." But we get also, side by side, *glisian* and *glitinian* "to glisten, shine," while Gothic has *glitmunjan* "to shine." It is generally assumed that the latter is derived from a noun *glitmuni*, even as we have *lauhmuni* "lightning." But *muni* does not occur elsewhere, and it is most likely that *lauhmuni*, though derived from a Germanic root, is formed in analogy with Arab. لهب *lahabun* "flash, flame." Similarly the phonetically very irregular derivatives from the Arab. *galas* are, most likely, due to the fact that here we have only the word as recorded in the dictionaries, whereas the original gloss, representing Lat. *glaciem*, should have been غلصم or غلظم, as may be seen from غلصم *galṣamun* "the epiglottis," unquestionably from an accusative *glottim* for "glottida," which should have been غلطم *galtamun.*[1] It may even be that this "glottis" word crowded out the longer word for "daybreak, dawn" from the Arabic vocabulary. Such an Arabic word would have given Goth. *glitmun*, hence *glitmunjan* "to shine."

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[1] *De officiis*, cap. VII, in *Corpus scriptorum historiae byzantinae*, vol. XXXVI, p. 57.

[2] See p. 114 ff.

In OHGerman we have *glīzemo*, *gliz*, *glīzzo* "luster," *gleimo* "gleam, lightning bug," *glimo* "lamp," *glanz*, *glat* "shining," the latter leading to Ger. *glatt* "smooth." But by the side of AS. *glāēm* "brightness, splendor" and *gleām* "a joyous noise," we have *glōm* "twilight, darkness," which brings us back to the Arabic word with which we began.

At first sight it might appear as though AS. *gliw*, *glig* "glee, joy, minstrelsy, mirth, jesting, drollery," *gleóman*, *glīman* "a gleeman, histrio, scurra, mimus, pantomimus," were related to OFr. *glay* "joy." In reality there is no connection whatsoever between the two. AS. *gliw* is a ghost word. The Erfurt Glossary[2] has the lemma: "In mimo *ingluuiae* quod tm̃ ad mimarios uel mimigraphos pertinet," where the Epinal Glossary[3] reads *ingliuuae.* Of course, the reference is to the voracity of the juggler, but the ASaxon glossator took *in gliuuae* to be an ASaxon gloss, and in the very Erfurt Glossary wrote "facitiae *gliu*,"[4] thus creating a nominative to what he took to be a dative. It is not necessary to follow up the later uses of *gliw*, as they all proceed from "in mimo *ingluuiae*." Now, a fifteenth century vocabulary[1] has the gloss "*glimo* to be gyle." As "to beguile" means "to amuse," we have here a latinized verb *glimo*, formed from *glīman* "a jester." This got into ONorse as *glīma* "wrestling," *glīminn* "able, alert as a wrestler." We have also in ONorse *gleyma* "to make a merry noise," *gleymr* "pranks, jollity," *glaumr* "a merry noise, joy, merriment," in which, as in the case of AS. *gleām* "a joyous noise," the ghost word *gliw* and derivatives from *glas* overlap. None of the other Germanic languages have either the ASaxon or the ONorse words, but the Edda has also *glȳ* "glee, gladness." We also have *glȳjari* "a gleeman, jester," *glȳja* "to be gleeful." That the reference in ONorse was to the juggler is proved by the Slavic derivatives from the ONorse *glaumr*. We have OBulg. *glumŭ* "scena," Serb. *glumac* "actor," Russ. *glumit'* "to jest," Ruman. *glumĕ* "jest."

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[1] See also p. 333.

[2] *Amplonianum primum*, Goetz, vol. V, p. 367.

[3] O. B. Schlutter, *Das Epinaler und Erfurter Glossar*, Hamburg 1912, p. 12.

[4] Goetz, vol. V, p. 359.

In the Philargyrius gloss to *Bucolics* IV. 44 we have "croceo idest *glas*. (murice) rubida tinctura vel purpura vel flos,"[2] followed by "sandyx idest genus herbae rubeum, cuius radices infantes cum coxerint, ceram tingunt," in one MS. "sandyx genus herbae rossei coloris idest *glaus*."[3] Here we see that in the VIII. century (for it is clear from the Arabic origin of *glas* that we are dealing with glosses whose composition, in the form in which they appear, cannot go back any farther), *glas* still referred to a yellow or reddish, and not to a blue, color. Both the Epinal and Corpus glosses give "sandix *weard*," which is found in a large number of OHGerman glosses as "sandix *uueith*, *vvehte*, *vveuth*, *wend*, *waido*."[4] All these are due to a confusion of madder with the newly introduced woad in Western Europe.

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[1] Wright and Wülcker, *op. cit.*, vol. I, col. 586.

[2] Thilo, *op. cit.*, vol. III^2, p. 85.

[3] *Ibid.*, p. 86.

[4] *Zeitschrift für deutsche Wortforschung*, vol. II, p. 230.

The Latin translation of Oribasius several times refers to woad: "Isatis herva, quam tinctores herba *vitrum* vocant et Goti (Gubti) *uuisdile* (*ovisdelem*),"[1] "isates vero herba quae a tinctoribus herba *bitrus*, a Gotis *uuisdil* (*guisdil*) dicitur."[2] This has been used as a proof that the Latin translation was made in the beginning of the VI. century, when there were still Goths in Italy.[3] But we have Arab. عظلم *‘iẕlim*, dial. عظلم *‘aẕlam* "the expressed juice of a species of tree or plant the color of which is like indigo, green inclined to duskiness, a certain red dye." There can be little doubt that عظلم is a miswritten عظيم *‘iẕim*, that is *isatim*, and is derived from the Greek or Latin. But Arab. عظلم, whatever its origin, would be written in Latin *wisdelem* or *guisdelem*, as found in Oribasius. Therefore, if the reading *Goti* is correct, we have a reference to Spanish Goths, and the Latin translation of Oribasius, as preserved in the manuscript, is of the VIII. or IX. century. But it may be that the reading *Gubti* is correct. In that case we have here a reference to a Copt. *izatim*, otherwise not recorded.

The AS. *weard* is unquestionably a misreading of *wasd*, for we have recorded *guastum* for *glastum*, and there can be little doubt that the original meaning was, as "sandix" indicates, that of "madder." This leads us at once to the Romance words for "madder." An OHGerman gloss reads "*vuarencibla* et uarix et coccinum *vuarca*,"[4] to which the editor says that this is the only place where "coccinum" and "vuarencibla" refer to "pustules." But the editor is mistaken. We have here three words for "coccinum," *vuarencibla*, *uarix*, *vuarca*, the latter two misreadings of *ward*, the first a nasalisation on account of the writing $\overline{\textit{ward}}$; and *bla et* is, in all probability, a corruption of *glas*. That such must be the case is shown by the Oribasius juxtaposition of *vitrum* and *wisdilem*, the first being a retranslation into Latin of *glas* in the sense of "crystallum." That we have only one word explained is shown by the *Capitulare de villis*, of the beginning of the IX. century, where we read "waisdo, vermiculo, warentia."[1] Here we have three words, not for separate substances, but for the same substance. "Vermiculus" is a translation of κόκκος in Exodus XXXV. 25, hence here it is a translation of "coccinum" of our previous gloss and means "purple, red." We have also a X. century gloss "isatis i. *uuas dus* unde tingunt persum."[2] "Persum" means originally "dark purple," and the oldest dated document, of the year 1070,[3] writes *perset*. This identifies it with Arab. فرساد *firsāḍ* "a red dye, redness," and we see that "isatis," like "sandix," "glas," "weid," was used for "dye," generally "red dye," by the side of its legitimate reference to blue. But *was dus*, *guastum*, *weard* arose from a confusion of *glas* with *wisdilem*. It must not be forgotten that Arab. عظلم was a misreading of عظيم or عظتم, either of which would lead to a reading *wasdum*, *guastum*. As in the case of Arab. *glas*, which survived in books for an original *glsm*, so Arab. ʻ*iẕlm* survived for a form *iẕm* or *iẕṭm*. The original two words which disappeared would explain both *glastum* and *wasdum*, hence *wasd*,

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[1] Bussemaker and Daremberg, *Oeuvres d'Oribase*, Paris 1876, vol. VI, pp. 131, 132.

[2] *Ibid.*, p. 142, and again pp. 153, 481.

[3] *Ibid.*, p. XXV, and V. Rose, *Anecdota graeca et graecolatina*, Berlin 1870, vol. II, p. 117.

[4] Steinmeyer and Sievers, *op. cit.*, vol. III, p. 429.

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[1] *MGH.*, *Leges, Capitularia*, vol. I, p. 87.

[2] Goetz, vol. III, p. 583.

[3] Ducange, sub *Persus*.

waisd, *waid*, *weard*, etc. But it is not at all necessary to have recourse to the original Arabic forms, to explain the vagaries of the vocabularies. This much is certain, beyond a shadow of a doubt. The vocabulary words for "madder," more especially for "woad," are due to the intensive dyeing processes introduced or fostered by the Arabs in the VIII. century. At first the terms were loosely used for "amber color," but later, with the more extensive use of woad for the older madder, and the introduction by the Arabs of indigo from the East, they were more and more applied to colors of which the fundamental color was blue.

"Indigo" is in Arabic نيل *nīl*, from the Sanskrit *nīla* نيل "blue." It is well known that Span. *añil* is due to Arab. النيل *alnīl*, pronounced *an-nīl*. We have also Arab. ليل *līl*, which ultimately leads to "lilac," etc. In the Latin translation of Serapion[1] *nīl* is given as *dili*. With the article it would be *aldili* or *andili*, to judge from the form *nīl*. This *andili* led to *indicum* as the name for indigo.

Indicum is mentioned in Pliny: "non pridem adportari et *Indicum* coeptum est, cuius pretium * VII. Ratio in pictura ad incisuras, hoc est umbras dividendas ab lumine."[2] "Ab hoc maxima auctoritas *Indico*. Ex India venit harundinum spumae adhaerescente limo. Cum cernatur, nigrum, at in diluendo mixturam purpurae caeruleique mirabilem reddit. Alterum genus eius est in purpurariis officinis innatans cortinis, et est purpurae spuma. Qui adulterant, vero *Indico* tingunt stercora columbina aut cretam Selinusiam vel anulariam *vitro* inficiunt. Probatur carbone; reddit enim quod sincerum est flammam excellentis purpurae et, dum fumat, odorem maris. Ob id quidam e scopulis id colligi putant. Pretium *Indico* * XX in libras. In medicina *Indicum* rigores et impetus sedat siccatque ulcera."[1] This is repeated in Isidore, "*Indicum* in Indicis invenitur calamis, spuma adhaerente limo: est autem coloris cyanei, mixturam purpurae caerulique mirabilem reddens; est alterum genus in purpurariis officinis, spuma in aereis cortinis innatans, quam infectores detrahentes siccant,"[2] while Vitruvius has "item propter inopiam coloris *indici* cretam selinusiam aut anulariam *vitro*, quod Graeci ισατιν appellant, inficientes imitationem faciunt *indici* coloris."[3] ῎Ισατιν is a modern correction, for the manuscripts read *insallim*,[4] *insallum*, *salsim*, *visallin*, *visalsin*.[5] No further discussion is necessary here, for it is obvious that in the Vitruvius MSS. we have the Arab. عظلم *'iẓlim*, and that the reference to ἴσατις is interpolated and of no value. But the rest of the passage is clearly from Pliny, and so only the latter need be considered. Similarly the words "herba, quam nos *vitrum*, Graeci *isatida* vocant, quo infectores utuntur" in Marcellus' *De medicamentis liber*[6] are of no use, since they are almost identical with the interpolated gloss in Oribasius, hence a late interpolation. *Isatida* is here given correctly, but we have not one MS. of Marcellus, and nothing can be said of the original form of the word. This leaves us with Pliny; but this is identical with Dioscorides: «τοῦ δὲ λεγομένου 'Ινδικοῦ τὸ μὲν αὐτομάτως γίνεται, οἱονεὶ ἔκβρασμα ὂν τῶν 'Ινδικῶν καλάμων· τὸ δὲ βαφικόν ἐστιν ἐπανθισμὸς πορφύρας, ἐπαιωρούμενος τοῖς χαλκείοις, ὃν ἀποσύραντες ξηραίνουσιν οἱ τεχνῖται· ἄριστον δὲ ἡγητέον τὸ κυανοειδές τε καὶ ἔγχυλον, λεῖον· ἔστι δὲ τῶν ψυχόντων ἐλαφρῶς καὶ ῥυσούντων φλεγμονὰς καὶ οἰδήματα· ἀνακαθαίρει δὲ καὶ καταστέλλει ἕλκη».[1] That this is a highly interpolated passage follows from the quotation in Paulus Aegineta, who wrote in the VII. century and who said: «μέλαν ’Ινδικόν, ὥς φησι Διοσκουρίδης, τῶν ψυχόντων ἐλαφρῶς ἐστι,» and referred the last statement, not to *indigo*, but to *Indian ink*, which is not described in the passage in Dioscorides. It is described separately in Pliny as "atramentum indicum,"[2] which is correctly explained by Isidore in a separate paragraph under "atramentum,"[3] and this coincides with Dioscorides' description of μέλαν.[4] But we have a better proof yet that the whole is an interpolation. Oribasius repeats a sentence from Dioscorides in the Synopsis, «ἰνδικὸν ἄριστόν ἐστι τὸ κυανοειδές τε καὶ ἔγχυλον λεῖον»,[5] but neither in the larger work of Oribasius, nor in the *Euporistes*, where the lists are much more complete, is there any reference to ἰνδικόν. As the quotation from Dioscorides is in that part of Oribasius which is *literatim et verbatim* a copy from Dioscorides, it follows that Oribasius knew nothing of *indicum*, and that the compiler added the interpolated Dioscorides to Oribasius. Now, the first four books of Dioscorides exist in Greek originals of the VI. and VII. centuries,[6] while book V, in which the passage under discussion is found, goes back only to a MS. of the IX. century.[7] It is clear, therefore, that the latter is, to say the least, interpolated. With Dioscorides falls the passage in Pliny.

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[1] P. Guigues, *Les noms arabes dans Sérapion "Liber de simplici medicina,"* Paris 1905, p. 44.

[2] XXXIII. 163.

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[1] XXXV. 46.
[2] XIX. 17. 16.
[3] VII. 14. 2.
[4] Ed. F. Krohn, Lipsiae 1912, p. 169.
[5] Ed. J. G. Schneider, Lipsiae 1808, vol. III, p. 87.
[6] XXIII. 10.

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[1] V. 92.

[2] XXXV. 43.

[3] XIX. 17. 17, 18.

[4] V. 162. It was also known to the Arabs as Indian ink: "He brought from India a black paint, called *hindī*, which colored the hair to the very roots a brilliant, ineffaceable black" (Mas‘ūdī, *op. cit.*, vol. II, p. 203).

[5] *Op. cit.*, vol. V, p. 79.

[6] Ed. M. Wellmann, Berolini 1907, vol. I, p. V.

[7] *Ibid.*, vol. III, p. V.

It is interesting to observe that here we have twice a reference to the late introduction of *indigo*, which fits the VIII. century completely.

Obviously *glaesum*, *Glaesaria* of Pliny and Solinus are, to say the least, interpolations. But we have also in Pliny "simili plantagini—*glastum* in Gallia vocatur—Britannorum coniuges nurusque toto corpore oblitae quibusdam in sacris nudae incedunt, Aethiopum colorem imitantes."[1] Here again *glastum* is an interpolation, but not only the word,—the whole passage is due to a series of blunders.[2] "Plantago" is "plantain" and is nowhere recorded as a dye plant. The interpolator, or forger, knew of the use of *glas* as a dye, and he mistook the prolific gloss in the vocabularies "plantago *arnoglossa*" as an equation of plantago and *glas*. This was, no doubt, done through an Arabic source, since Gr. ἀϱνόγλωσσα is frequently recorded in Arabic as "*lisen alhamel*,"[3] literally "tongue of the lamb," where γλῶσσα suggested *glas*, and *glas*, *glastum* was given as the translation of "plantago."

The absolute proof of this is found in Caesar. Here the same story is told in connection with *vitrum*, where the dye is correct, and the word wrong,—so here the story is again an interpolation. We read:[4] "Omnes vero se Britanni *vitro* inficiunt, quod caeruleum efficit colorem, atque hoc horridiores sunt in pugna aspectu." Pomponius Mela has the same interpolation, "incertum ob decorem, an quid aliud, *vitro* corpora infecti,"[5] and Jordanes has it as "ob decorem nescio an aliam quam ob rem *ferro* pingunt corpora."[6]

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[1] XXII. 2.

[2] I leave it to Ph. Barry to treat the myth of the painted Britons in his *Celtic Antiquity*.

[3] E. g. in Serapion, *op. cit.*, p. 80.

[4] *De bello gallico*, V. 14.

[5] III. 6. 5.

[6] II (14).

The last two quotations are clearly of the same origin, and Jordanes' is the older, since it is based directly on a misconception of a passage in Herodianus. Here we read: "Sed ilia et colla (τὰς μὲν λαπάρας καὶ τοὺς τραχήλους)(Britanni)ornant ferro, decus id ac divitiarum indicium existimantes, sicut aurum caeteri barbari; corpora autem compungunt notis variorum animalium imaginibus; quocirca nec induuntur, ne operiant corporis picturas."[1] The forger known as Jordanes misunderstood or purposely misquoted the passage and made the Britons adorn their bodies by tattooing them with iron, whereas Herodianus says that they adorned their bodies with iron, and also tattooed their bodies. Claudianus similarly writes:

> "Inde Caledonio velata Britannia monstro,
> Ferro picta genas, cuius vestigia verrit
> Caerulus Oceanique aestum mentitus amictus."[2]

Oudendorp[3] correctly interprets the last line as meaning that the woad covers the tattoomarks, as is still the case among the Arabs. This shows that Claudianus does not quote from Herodianus, but from the same source as Jordanes. I have already pointed out suspicious matter in Claudianus,[4] whom I take to be an VIII. century forger; and I am convinced that Herodianus is similarly an VIII. century forger, of a piece with Ammianus Marcellinus and Jordanes. However this may be, it is clear that the quotation in Mela is even later than that in Jordanes, and, with Pliny's reference to *glastum* and Caesar's to *vitrum* in Britain, belongs to the VIII. century. Strabo knows only of Thracians and Scythians who tattooed themselves, and Vergil refers similarly to Agathyrsi and Geloni. To *Aeneid* IV. 146 "pictique Agathyrsi" Servius writes "populi sunt Scythiae, colentes Apollinem hyperboreum, cuius logia feruntur; 'picti' autem, non stigmata habentes, sed pulcri, hoc est cyanea coma placentes;"[1] but the interpolated Servius reads "picti autem, non stigmata habentes, sicut gens in Britannia, sed pulcri," etc. The reference to British tattooing is an afterthought, due to the account in Herodianus.

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[1] III. 14. 13.

[2] *De consulatu Stilichonis.* II. 247 ff.

[3] *C. Julii Caesaris . . Commentarii,* Lugduni Batavorum, Rotterodami 1737, p. 228.

[4] *Contributions,* vol. III, p. 116.

It is only natural to find *glesum* in Tacitus' *Germania*, since the whole is a base forgery. Here we read:[2] "Sed et mare scrutantur ac soli omnium succinum, quod ipsi *glesum* vocant, inter vada atque in ipso littore legunt. Nec, quae natura quaeve ratio gignat, ut barbaris, quaesitum compertumve. Diu quin etiam inter cetera ejectamenta maris jacebat, donec luxuria nostra dedit nomen: ipsis in nullo usu: rude legitur, informe perfertur, pretiumque mirantes accipiunt. Succum tamen arborum esse intelligas, quia terrena quaedam atque etiam volucria animalia plerumque interlucent, quae implicata humore, mox, durescente materia,cluduntur. Fecundiora igitur nemora lucosque, sicut Orientis secretis, ubi thura balsamaque sudantur, ita Occidentis insulis terrisque inesse, crediderim; quae vicini solis radiis expressa atque liquentia in proximum mare labuntur, ac vi tempestatum in adversa littora exundant. Si naturam succini admoto igne tentes, in modum taedae accenditur, alitque flammam pinguem et olentem: mox ut in picem resinamve lentescit." The chief interest in this passage lies in the fact that it is paraphrased in Cassiodorus' *Variae*[3] and definitely ascribed to Tacitus, thus showing the *Variae* to be a forgery, as I have long suspected it to be. The passage

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[1] Thilo, *op. cit.*, vol. I, p. 490.
[2] XLV.
[3] V. 2.

runs as follows: "Et ideo salutatione vos affectuosa requirentes indicamus sucina, quae a vobis per harum portitores directa sunt, grato animo fuisse suscepta. Quae ad vos Oceani unda descendens hanc levissimam substantiam, sicut et vestrorum relatio continebat, exportat: sed unde veniat, incognitum vos habere dixerunt, quam ante omnes homines patria vestra offerente suscipitis. Haec quodam Cornelio describente legitur in interioribus insulis Oceani ex arboris suco defluens, unde et sucinum dicitur, paulatim solis ardore coalescere. Fit enim sudatile metallum, teneritudo perspicua, modo croceo colore rubens, modo flammea claritate pinguescens, ut, cum in maris fuerit delapsa confinio, aestu alternante purata vestris litoribus tradatur exposita."[1] Here the chief interest lies in the words "modo croceo colore rubens, modo flammea claritate pinguescens," which give an exact definition of Arab. غلس *galas.*

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[1] *MGH., Auct. Ant.,* vol. XII, p. 143 f.

XXIX. THE HERCYNIAN FOREST.

The Hercynian Forest, like the animals contained therein, is a myth. It all grew out of a misunderstood passage in Aethicus, who himself was none too honest in his quotations. This forger, in his Third Book, described the nations which were not mentioned in the Old Testament. He placed in the north the nation of the Griphes, from whom came the Saxons. They lived in the Hyperborean mountains, where the Tanais begins. This region produces no useful fruit, though it has useful beasts more numerous than are the monkeys and panthers elsewhere. Here crystal, amber, precious stones, and gold are found. Here are also the *aves hircaniae* and *fibrae*, whose wings are of a great size and shine in the night: "habet *aves hircanias* et fibras quarum pinnae nocte mirae magnitudinis luceant."[1]

The *aves hircaniae* are mentioned in Pliny: "in *Hercynio* Germaniae saltu invisitata genera alitum accepimus, quarum plumae ignium modo conluceant noctibus."[2] Of the *Hercynian Forest* Pliny knows nothing very real. It occurs in the same passage with the Istuaeones, which has already been shown to be an interpolation,[3] "introrsus vero nullo inferius nobilitate *Hercynium iugum* praetenditur,"[4] is barely mentioned in another passage,[5] and is explained at length in an impossible story, which is of a piece with the zoology of Caesar's Hercynian forest: "Another marvel, too, connected with the forests! They cover all the rest of Germany, and by their shade augment the cold. But the highest of them all are those not far distant from the Chauci already mentioned, and more particularly in the vicinity of the two lakes there. The very shores are lined with oaks, which manifest an extraordinary eagerness to attain their growth: undermined by the waves or uprooted by the blasts, with their entwining roots they carry vast forests along with them, and, thus balanced, stand upright as they float along, while they spread afar their huge branches like the rigging of so many ships. Many is the time that these trees have struck our fleets with alarm, when the waves have driven them, almost purposely it would seem, against their prows as they stood at anchor in the night, and the men, destitute of all remedy and resource, have had to engage in a naval combat with a forest of trees! In the same northern regions, too, is the Hercynian Forest, whose gigantic oaks, uninjured by the lapse of ages, and contemporary with the creation of the world, by their near approach to immortality surpass all other marvels known. Not to speak of other matters that would surpass all belief, it is a well-known fact that their roots, as they meet together, upheave vast hills; or, if the earth happens not to accumulate with them, rise aloft to the very branches even, and, as they contend for the mastery, form arcades, like so many portals thrown open, and large enough to admit of the passage of a squadron of horse."[1]

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[1] H. Wuttke, *Die Kosmographie des Istrier Aithikos*, Leipzig 1853, cap. XXXI.

[2] X. 132.

[3] See my *Contributions*, vol. III, p. 216 ff.

[4] IV. 100.

[5] IV. 80.

In Solinus the *Hercynian Forest* is used only to introduce the light-birds, on whom the author expatiates at greater length: "saltus Hercynius aves gignit, quarum pennae per obscurum emicant et interlucent, quamvis obtenta nox denset tenebras; unde homines loci illius plerumque nocturnos excursus sic destinant, ut illis utantur ad praesidium itineris dirigendi, praeiactisque per opaca callium rationem viae moderentur indicio plumarum refulgentium."[1]

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[1] XVI. 5–6.

Isidore mentions the light-birds twice,—once, summarily as coming from Germany, where also the wild beasts come from, and here not a word is said about the *Hercynian Forest;* and again, where the same etymology is given as in Pliny: "Terra dives virum ac populis numerosis et inmanibus; unde et propter fecunditatem gignendorum populorum Germania dicta est. Gignit *aves Hyrcanias*, quarum pinnae nocte perlucent; bisontes quoque feras et uros atque alces parturit. Mittit et gemmas, crystallum et sucinum, callaicum quoque viridem, et ceraunium candidum;"[2] "*Hercyniae aves* dictae ab Hercynio saltu Germaniae, ubi nascuntur, quarum pinnae adeo per obscurum emicant ut quamvis nox obtenta densis tenebris sit, ad praesidium itineris dirigendi praeiactae interluceant, cursusque viae pateat indicio plumarum fulgentium."[3] In the first case we have an agreement with Aethicus, in the second, with Pliny, and the total absence of any other mention of the *Hercynian Forest* in Isidore is fatal for its existence before the VII. century.

One will in vain look elsewhere for the *aves hircaniae*, except as quotations from the above authors. No such birds exist in previous literature, though we have any amount of references to fire-flies. They are known in Latin as *cicindela*, and of them Pliny says: "lucentes vespere per arva *cicindelae*—ita appellant rustici stellantes volatus, Graeci vero lampyridas."[4] Aethicus, by using *fibra* together with *aves hircaniae* shows that he had in mind the fire-fly; for in the Latin-

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[1] XX. 3.
[2] XIV. 4. 4.
[3] XII. 7. 31.
[4] XVIII. 250.

Arabic vocabulary *fibra* is translated by حيط وقضيب, and خيط means not only "thread," but also "the true dawn, light entering from an aperture in the wall, atoms that are seen in the rays of the sun entering from an aperture in a wall into a dark place when the sun is hot." Aethicus got his *aves hircaniae* from Arab. ابو جعران *'abū ǵi'rān*, which, in the Latin-Arabic glossary, is given as the equivalent of "cicindela." The word is not originally Arabic, and is, most likely, Copt. *ab χrōm*, literally, "beetle of fire." The Arabic word was by Aethicus transformed to *aves hircanae*, most likely under the influence of "Hyrcanius saltus" and of Arab. حرق *ḥaraq* "kindle, ignite, burn." But, whether Aethicus did, as usual, indulge in such composite etymology or not, *fibra* sufficiently identifies the *aves hircaniae* as "fire-motes" or "fire-flies." Once these were identified as birds, we find the word incorporated in Isidore as *aves Hyrcaniae*, only later to be changed to *aves Hercyniae*, when such a *Hercynian Forest* was created in literature for Germany.

The *Hercynian Forest* is partly due to the existence of a wild *Hyrcania* in Asia, but chiefly to a series of formal blunders. In the chapter on the *autolops* it is shown how the Arab. شجرة *šaǵaraṭan* "the thickly growing trees" produced the tree ἐρεκίνα, etc., of the Greek text. This is given in the Latin *Physiologus* as "et est ibi frutex, qui dicitur graece *herecina, hericine*."[1] The marvelous story of the *autolops*, which has played such an important rôle in locating more impossible animals in the same region, led to the extension of *herecina, hericina* as a region of densely growing trees where all kinds of animals are found.

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[1] A. Karnyeev, *op. cit.*, p. 353.

In Caesar the *Hercynia silva* is mentioned only in connection with the animals found in it. This in itself shows that the reference is not genuine, for in the previous five books, where the Germans are mentioned again and again, not a word is said about such a forest. He claims to get the information from Eratosthenes and other Greeks who called it *Orcynia:* "Ac fuit antea tempus, cum Germanos Galli uirtute superarent, ultro bella inferrent, propter hominum multitudinem agrique inopiam trans Rhenum colonias mitterent. Itaque ea, quae fertilissima Germaniae sunt, loca circum *Hercyniam siluam*, quam Eratostheni et quibusdam Graecis fama notam esse uideo, quam illi *Orcyniam* appellant, Volcae Tectosages occupauerunt atque ibi consederunt; quae gens ad hoc tempus his sedibus sese continet summamque habet iustitiae et bellicae laudis opinionem. Nunc quidem in eadem inopia, egestate patientiaque Germani permanent, eodem uictu et cultu corporis utuntur; Gallis autem prouinciarum propinquitas et transmarinarum rerum notitia multa ad copiam atque usus largitur, paulatim adsuefacti superari multisque uicti proeliis ne se quidem ipsi cum illis uirtute comparant. Huius Hercyniae siluae, quae supra demonstrata est, latitudo nouem dierum iter expedito patet: non enim aliter finiri potest, neque mensuras itinerum nouerunt. Oritur ab Heluetiorum et Nemetum et Rauracorum finibus rectaque fluminis Danubii regione pertinet ad fines Dacorum et Anartium; hinc se flectit sinistrorsus diuersis ab flumine regionibus multarumque gentium fines propter magnitudinem adtingit; neque quisquam est huius Germaniae, qui se [aut audisse] aut adisse ad initium eius siluae dicat, cum dierum iter LX processerit, aut, quo ex loco oriatur, acceperit: multaque in ea genera ferarum nasci constat, quae reliquis in locis uisa non sint; ex quibus quae maxime differant ab ceteris et memoriae prodenda uideantur, haec sunt."[1]

According to Caesar the *Hercynian Forest* was originally occupied by the Volcae and Tectosages, two Gallic tribes. This is also told by Livy, who gives an apocryphal story of Ambigatus, who sent his nephew Segovesus to the Hercynian Forest, which was given to him by lot: "Ambigatus is fuit, virtute fortunaque cum sua tum publica praepollens, quod in imperio eius Gallia adeo frugum hominumque fertilis fuit, ut abundans multitudo vix regi videretur posse. Hic magno natu ipse iam exonerare praegravante turba regnum cupiens Bellovesum ac Segovesum sororis filios, inpigros iuvenes, missurum se esse in quas dii dedissent auguriis sedes ostendit: quantum ipsi vellent numerum hominum excirent, ne qua gens arcere advenientes posset. Tum Segoveso sortibus dati Hercynei saltus; Belloveso haut paulo laetiorem in Italiam viam di dabant. Is, quod eius ex populis abundabat, Bituriges, Arvernos, Senones, Aeduos, Ambarros, Carnutes, Aulercos excivit."[2] Livy has come down in a very bad text, and Madvig's *Emendationes Livianae*[3] give in more than 700 pages only a part of the puzzling errors contained in it. The story of Segovesus is purposeless as it stands, since Livy is only dealing with the Gauls of Italy. *Segovesus* is, no doubt, the same as *Segimerus* of the Arminius episode, a person that played an important genealogical part in it.[4] The transformation from a German to a Gaul will become clear later on.

The *Hercynian Forest* is due to a confusion with the *Hyrcanian Forest* of Julian. The history of Ammianus, in the form in which it has come down to us, is not genuine, but must be based on some previous work, for many of the incidents connected with Julian are certainly historical and not due to the Julian romance. Ammianus, in connection with Julian, describes *Hyrcania* at great length, and especially emphasizes the wildness of the country and its animals: "Interius uero pergenti occurrunt Hyrcani, quos eiusdem nominis adluit mare. Apud quos, glebae macie internecante sementes, ruris colendi cura est leuior, sed uescuntur uenatibus, quorum uarietate inmane quantum exuberant. Ubi etiam tigridum milia multa cernuntur, feraeque bestiae plures, quae cuiusmodi solent capi commentis, dudum nos meminimus rettulisse. Nec ideo tamen stiuam ignorant, sed seminibus teguntur aliquae partes, ubi solum est pinguius, nec arbusta desunt in locis habilibus ad plantandum, et marinis mercibus plerique sustentantur."[1] While he does not specifically mention Julian in the *Hyrcanian Forest*, we get this relation in the Second Syriac Romance of Julian's Death. I shall give here such additional material[2] as bears upon our subject. King Sapor sent his Mōbed Arimihr to Jovian, asking the latter to spare the Persians, since he had a prophetic knowledge that Jovian would ultimately be conquered by the Persians. The Mōbed (chief magistrate) formed a fast friendship with Jovian and told him of Sapor's preparation for war. Arimihr became a Christian. Julian waged war upon Sapor and conquered all the country from the Tigris to *Bēṭ Aramāye.* Sapor sent a delegation to Julian, asking him to give up all the land between the Tigris and the sea, but Julian answered that, had it not been for the pagan holidays, he would even then be in *Hyrcania.*

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[1] VI. 24–25.
[2] V. 34. 2–5.
[3] Hauniae 1877.
[4] See my *Contributions*, vol. III, p. 173.

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[1] XXIII. 6. 50–51.

[2] Th. Nöldeke, *Ueber den syrischen Roman von Kaiser Julian,* in *Zeitschrift der deutschen morgenländischen Gesellschaft,* vol. XXVIII, p. 270 ff.; see my *Contributions,* vol. III, p. 144 ff.

Hyrcania was originally a country in the Caucasus and etymologically identical with Ἰβήρια.[1] This was known in antiquity, and so in the *Liber Generationum* the Hyrcanians are derived from *Heber*.[2] But in the minds of the ancients *Hyrcania* was any wild country in Asia. Hence Pliny mentioned *Hyrcani* in Macedonia;[3] Strabo places some *Hyrcanians* in Lydia;[4] Servius identifies *Hyrcania* with Arabia;[5] a *Mons Hyrcanius* is to the right of the Taurus mountain.[6] If Julian himself says that he roamed through the *Hercynian Forest*, we unquestionably have a textual corruption for *Hyrcanian Forest:* "But as for me, I had to do with Celts and Germans and the *Hercynian Forest* (δρυμὸς Ἑρκύνιος) from the moment that I was reckoned a grown man."[7] That he had in mind the Alanians in the Caucasus follows from his reference to the *Hercynian Forest* as far worse than Thessalian Tempe or Thermopylae or Taurus: «Πρὸς τὴν Ἑρκυνίαν ὕλην ἐθέομεν, καὶ εἶδον ἐγὼ χρῆμα ἐξαίσιον· ἰδοὺ γοῦν σοι θαρρῶν ἐγὼ ἐγγυῶμαι, μήποτε ὦφθαι τοιοῦτον μηδέν, ὅσα γε ἡμεῖς ἴσμεν, ἐν τῇ Ῥωμαίων· ἀλλ' εἴτε τὰ Θετταλικὰ Τέμπη δύσβατα νομίζει τις εἴτε τὰς Θερμοπύλας εἴτε τὸν μέγαν καὶ διωλύγιον Ταῦρον, ἐλάχιστα ἴστω χαλεπότητος ἕνεκα πρὸς τὸ Ἑρκύνιον ὄντα».[8]

In Strabo the account of Germany begins with the settlement of the Marsi in Germany. I have already shown how this interpolation arose.[9] Then we hear of the *Hercynian Forest* and the Suevi and Quadi who live there. There is also Buiaemum, the realm of Maroboduus, who took his Marcomanni there and subjugated the Lui, Zumi, Butones, Mugilones, Sibini, and the Suevian Semnones. According to him the inhabitants of the Hercynian Forest are Germanic Suevi. They do not cultivate the ground, and live from day to day, like nomads. The Hercynian Forest is dense and impenetrable, but in the inside there is an inhabitable place. Here the Danube begins. There is also another large forest, Gabreta, beyond which is the *Hercynian Forest*, held by the Suevi: «Ἔστι δὲ τὰ μὲν πρῶτα μέρη τῆς χώρας ταύτης τὰ πρὸς τῷ Ῥήνῳ μέχρι τῶν ἐκϐολῶν ἀπὸ τῆς πηγῆς ἀρξαμένοις· σχεδὸν δέ τι καὶ τοῦτ’ ἔστι τὸ ἑσπέριον τῆς χώρας πλάτος, ἡ ποταμία πᾶσα· ταύτης δὲ τὰ μὲν εἰς τὴν Κελτικὴν μετήγαγον Ῥωμαῖοι, τὰ δ’ ἔφθη μεταστάντα εἰς τὴν ἐν βάθει χώραν, καθάπερ Μαρσοί· λοιποὶ δ’ εἰσὶν ὀλίγοι καὶ τῶν Σουγάμϐρων μέρος· μετὰ δὲ τοὺς παραποταμίους τἆλλά ἐστιν ἔθνη τὰ μεταξὺ τοῦ Ῥήνου καὶ τοῦ Ἄλϐιος ποταμοῦ, ὅς παράλληλός πως ἐκείνῳ ῥεῖ πρὸς τὸν ὠκεανόν, οὐκ ἐλάττω χώραν διεξιὼν ἤπερ ἐκεῖνος· εἰσὶ δὲ μεταξὺ καὶ ἄλλοι ποταμοὶ πλωτοί (ὧν ἐν τῷ Ἀμασίᾳ Δροῦσος Βρουκτέρους κατεναυμάχησε), ῥέοντες ὡσαύτως ἀπὸ νότου πρὸς βορρᾶν καὶ τὸν ὠκεανόν· ἐξῆρται γὰρ ἡ χώρα πρὸς νότον καὶ συνεχῆ ταῖς Ἄλπεσι ποιεῖ ῥάχιν τινὰ πρὸς ἕω τεταμένην, ὡς ἂν μέρος οὖσαν τῶν Ἄλπεων· καὶ δὴ καὶ ἀπεφήναντό τινες οὕτως διά τε τὴν λεχθεῖσαν θέσιν καὶ διὰ τὸ μὴν αὐτὴν ὕλην ἐκφέρειν· οὐ μὴν ἐπὶ τοσοῦτό γε ὕψος ἀνίσχει τὰ ταύτῃ μέρη· ἐνταῦθα δ’ ἐστὶ καὶ ὁ Ἑρκύνιος δρυμὸς καὶ τὰ τῶν Σοήϐων ἔθνη, τὰ μὲν οἰκοῦντα ἐντὸς τοῦ δρυμοῦ, καθάπερ τὰ τῶν Κοαδούων· ἐν οἷς ἐστι καὶ τὸ Βουίαιμον, τὸ τοῦ Μαροϐόδου βασίλειον, εἰς ὅν ἐκεῖνος τόπον ἄλλους τε μετανέστησε πλείους καὶ δὴ καὶ τοὺς ὁμοεθνεῖς ἑαυτῷ Μαρκομμάνους· ἐπέστη γὰρ τοῖς πράγμασιν οὗτος ἐξ ἰδιώτου μετὰ τὴν ἐκ Ῥώμης ἐπάνοδον· νέος γὰρ ἦν ἐνθάδε καὶ εὐεργετεῖτο ὑπὸ τοῦ Σεϐαστοῦ, ἐπανελθὼν δὲ ἐδυνάστευσε καὶ κατεκτήσατο πρὸς οἷς εἶπον

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[1] J. Marquart, *Beiträge zur Geschichte und Sage von Erān*, in *Zeitschrift der deutschen morgenländischen Gesellschaft*, vol. XLIX, p. 632 f.

[2] Forcellini, sub *Hyrcani*.

[3] V. 120.

[4] XIII. 4. 13.

[5] *Aen.* IV. 367.

[6] Pliny, V. 99.

[7] Μισοπώγων, p. 359.

[8] F. C. Hertlein, *Iuliani Imperatoris quae supersunt . . omnia*, Lipsiae 1875, vol. I, p. 608 f.

[9] See my *Contributions*, vol. III, p. 161.

Λουίους τε, μέγα ἔθνος, καὶ Ζούμους καὶ Γούτωνας καὶ Μουγίλωνας καὶ Σιβινοὺς καὶ τῶν Σοήβων αὐτῶν μέγα ἔθνος, Σέμνωνας· πλὴν τά γε τῶν Σοήβων, ὡς ἔφην, ἔθνη τὰ μὲν ἐντὸς οἰκεῖ, τὰ δὲ ἐκτὸς τοῦ δρυμοῦ, ὅμορα τοῖς Γέταις· μέγιστον μὲν οὖν τὸ τῶν Σοήβων ἔθνος· διήκει γὰρ ἀπὸ τοῦ Ῥήνου μέχρι τοῦ Ἄλβιος· μέρος δέ τι αὐτῶν καὶ πέραν τοῦ Ἄλβιος νέμεται, καθάπερ Ἑρμόνδοροι καὶ Λαγκόβαρδοι· νυνὶ δὲ καὶ τελέως εἰς τὴν περαίαν οὗτοί γε ἐκπεπτώκασι φεύγοντες· κοινὸν δ' ἐστὶν ἅπασι τοῖς ταύτῃ τὸ περὶ τὰς μεταναστάσεις εὐμαρὲς διὰ τὴν λιτότητα τοῦ βίου καὶ διὰ τὸ μὴ γεωργεῖν μηδὲ θησαυρίζειν, ἀλλ' ἐν καλυβίοις οἰκεῖν, ἐφήμερον ἔχουσι παρασκευήν· τροφὴ δ' ἀπὸ τῶν θρεμμάτων ἡ πλείστη, καθάπερ τοῖς Νομάσιν, ὥστ' ἐκείνους μιμούμενοι τὰ οἰκεῖα ταῖς ἁρμαμάξαις ἐπάραντες, ὅπῃ ἂν δόξῃ, τρέπονται μετὰ τῶν βοσκημάτων».[1] «Ὁ δὲ Ἑρκύνιος δρυμὸς πυκνότερός τέ ἐστι καὶ μεγαλόδενδρος ἐν χωρίοις ἐρυμνοῖς, κύκλον περιλαμβάνων μέγαν, ἐν μέσῳ δὲ ἵδρυται χώρα καλῶς οἰκεῖσθαι δυναμένη, περὶ ἧς εἰρήκαμεν· ἔστι δὲ πλησίον αὐτῆς ἥ τε τοῦ Ἴστρου πηγὴ καὶ ἡ τοῦ Ῥήνου, καὶ ἡ μεταξὺ ἀμφοῖν λίμνη καὶ τὰ ἕλη τὰ ἐκ τοῦ Ῥήνου διαχεόμενα· ἔστι δ' ἡ λίμνη τὴν μὲν περίμετρον σταδίων πλειόνων ἢ τριακοσίων, δίαρμα δὲ ἐγγὺς διακοσίων· ἔχει δὲ καὶ νῆσον, ᾗ ἐχρήσατο ὁρμητηρίῳ Τιβέριος ναυμαχῶν πρὸς Οὐινδολικούς· νοτιωτέρα δ' ἐστὶ τῶν τοῦ Ἴστρου πηγῶν καὶ αὕτη, (καὶ ὁ Ἑρκύνιος δρυμός,) ὥστ' ἀνάγκη τῷ ἐκ τῆς Κελτικῆς ἐπὶ τὸν Ἑρκύνιον δρυμὸν ἰόντι πρῶτον μὲν διαπερᾶσαι τὴν λίμνην, ἔπειτα τὸν Ἴστρον, εἶτ' ἤδη δι' εὐπετεστέρων χωρίων ἐπὶ τὸν δρυμὸν τὰς προβάσεις ποιεῖσθαι δι' ὀροπεδίων· ἡμερήσιον δ' ἀπὸ τῆς λίμνης προελθὼν ὁδὸν Τιβέριος εἶδε τὰς τοῦ Ἴστρου πηγάς· προσάπτονται δὲ τῆς λίμνης ἐπ' ὀλίγον μὲν οἱ Ῥαιτοί, τὸ δὲ πλέον Ἑλουήττιοι καὶ Οὐινδολικοὶ καὶ ἡ Βοΐων ἐρημία· μέχρι Παννονίων πάντες, τὸ πλέον δ' Ἑλουήττιοι καὶ Οὐινδολικοί, οἰκοῦσιν ὀροπέδια. Ῥαιτοὶ

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[1] VII. 1. 3.

δὲ καὶ Νωρικοὶ μέχρι τῶν Ἀλπίων ὑπερβολῶν ἀνίσχουσι καὶ πρὸς τὴν Ἰταλίαν περινεύουσιν, οἱ μὲν Ἰνσούβροις συνάπτοντες, οἱ δὲ Κάρνοις καὶ τοῖς περὶ τὴν Ἀκυληίαν χωρίοις· ἔστι δὲ καὶ ἄλλη ὕλη μεγάλη Γαβρῆτα ἐπὶ τάδε τῶν Σοήβων, ἐπέκεινα δ' ὁ Ἑρκύνιος δρυμός· ἔχεται δὲ κἀκεῖνος ὑπ' αὐτῶν».[1]

The description of the *Hercynian Forest* is identical with that of Hyrcania by Ammianus. The story of Maroboduus is not given in detail in Strabo, any more than in Velleius Paterculus.[2] But we get a full account in Tacitus' *Annales* and *Germania*, from which it appears clearly that we are dealing here with the romance of Julian's death: "sic Sugambros in deditionem acceptos, sic Suebos regemque Maroboduum pace obstrictum."[3] "Nec multo post Drusus in Illyricum missus est, ut suesceret militiae studiaque exercitus pararet; simul iuvenem urbano luxu lascivientem melius in castris haberi Tiberius seque tutiorem rebatur utroque filio legiones obtinente. Sed Suebi praetendebantur auxilium adversus Cheruscos orantes. Nam discessu Romanorum vacui externo metu, gentis adsuetudine et tum aemulatione gloriae arma in se verterant. Vis nationum, virtus ducum in aequo: set Maroboduum regis nomen invisum aput populares, Arminium pro libertate bellantem favor habebat. Igitur non modo Cherusci sociique eorum, vetus Arminii miles, sumpsere bellum; sed e regno etiam Marobodui Suebae gentes, Semnones ac Langobardi, defecere ad eum. Quibus additis praepollebat, ni Inguiomerus cum manu clientium ad Maroboduum perfugisset, non aliam ob causam quam quia fratris filio iuveni patruus senex parere dedignabatur. Deriguntur acies, pari utrimque spe, nec, ut olim aput

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[1] VII. 1. 5.

[2] II. 109, 119, 129.

[3] *Ann.* II. 26.

Germanos, vagis incursibus aut disiectas per catervas: quippe longa adversum nos militia insueverant sequi signa, subsidiis firmari, dicta imperatorum accipere. Ac tunc Arminius equo conlustrans cuncta, ut quosque advectus erat, reciperatam libertatem, trucidatas legiones, spolia adhuc et tela Romanis derepta in manibus multorum ostentabat; contra fugacem Maroboduum appellans, proeliorum expertem, Hercyniae latebris defensum, ac mox per dona et legationes petivisse foedus, proditorem patriae, satellitem Caesaris, haud minus infensis animis exturbandum quam Varum Quintilium interfecerint. Meminissent modo tot proeliorum; quorum eventu et ad postremum eiectis Romanis satis probatum, penes utros summa belli fuerit. Neque Maroboduus iactantia sui aut probris in hostem abstinebat, sed Inguiomerum tenens, illo in corpore decus omne Cheruscorum, illius consiliis gesta quae prospere ceciderint, testabatur: vaecordem Arminium et rerum nescium alienam gloriam in se trahere. Quoniam tres vacuas legiones et ducem fraudis ignarum perfidia deceperit, magna cum clade Germaniae et ignominia sua, cum coniunx, cum filius eius servitium adhuc tolerent. At se duodecim legionibus petitum duce Tiberio inlibatam Germanorum gloriam servavisse, mox condicionibus aequis discessum; neque paenitere quod ipsorum in manu sit, integrum adversum Romanos bellum an pacem incruentam malint. His vocibus instinctos exercitus propriae quoque causae stimulabant, cum a Cheruscis Langobardisque pro antiquo decore aut recenti libertate et contra augendae dominationi certaretur. Non alias maiore mole concursum neque ambiguo magis eventu, fusis utrimque dextris cornibus. Sperabaturque rursum pugna, ni Maroboduus castra in colles subduxisset. Id signum perculsi fuit; et transfugiis paulatim nudatus in Marcomanos concessit misitque legatos ad Tiberium oraturos auxilia.

Responsum est non iure eum adversus Cheruscos arma Romana invocare, qui pugnantis in eundem hostem Romanos nulla ope iuvisset. Missus tamen Drusus, ut rettulimus, paci firmator."[1] "Dum ea aestas Germanico plures per provincias transigitur, haud leve decus Drusus quaesivit inliciens Germanos ad discordias utque fracto iam Maroboduo usque in exitium insisteretur. Erat inter Gotones nobilis iuvenis nomine Catualda, profugus olim vi Marobodui et tunc dubiis rebus eius ultionem ausus. Is valida manu fines Marcomanorum ingreditur corruptisque primoribus ad societatem inrumpit regiam castellumque iuxta situm. Veteres illic Sueborum praedae et nostris e provinciis lixae ac negotiatores reperti, quos ius commercii, dein cupido augendi pecuniam, postremum oblivio patriae suis quemque ab sedibus hostilem in agrum transtulerat. Maroboduo undique deserto non aliut subsidium quam misericordia Caesaris fuit. Transgressus Danuvium, qua Noricam provinciam praefluit, scripsit Tiberio non ut profugus aut supplex, sed ex memoria prioris fortunae: nam multis nationibus clarissimum quondam regem ad se vocantibus Romanam amicitiam praetulisse. Responsum a Caesare tutam ei honoratamque sedem in Italia fore, si maneret: sin rebus eius aliut conduceret, abiturum fide qua venisset. Ceterum aput senatum disseruit non Philippum Atheniensibus, non Pyrrhum aut Antiochum populo Romano perinde metuendos fuisse. Extat oratio qua magnitudinem viri, violentiam subiectarum ei gentium, et quam propinquus Italiae hostis, suaque in destruendo eo consilia extulit. Et Maroboduus quidem Ravennae habitus, si quando insolescerent Suebi, quasi rediturus in regnum ostentabatur."[2] "Igitur inter Hercyniam silvam Rhenumque et Moenum amnes Helvetii, ulteriora Boii, Gallica utraque

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[1] II. 44-46.
[2] II. 62-63.

gens, tenuere. Manet adhuc Boihemi nomen, signatque loci veterem memoriam, quamvis mutatis cultoribus."[1] "Iuxta Hermunduros Varisti, ac deinde Marcomani et Quadi agunt. Praecipua Marcomanorum gloria viresque, atque ipsa etiam sedes, pulsis olim Boiis, virtute parta."[2]

Arminius is Julian, and as the Mōbed Arimihr united with Jovian, so Maroboduus unites with Inguiomerus, the uncle of Arminius, against Arminius. *Mōbed* is written in Syriac ܡܘܦܛܐ *mūptå*, ܡܘܗܒܛܐ *mūhbtå*, in Arabic موبيذ *mūbīdz*. One of these suggested *Maroboduus*, which was possibly a German name. Similarly, ܒܝܬ ܓܪܡܐ *Beṭ Garma* produced *Boihemum*, through the Arab. باجرمة *Baǵarma*, which was read باحرمة *Baḥarma*. No doubt *Arimihr*, the name of the Mōbed, is responsible for *Inguiomerus*.

The ultimate aim of Julian is Hyrcania, and Arminius besieges the last stronghold of Maroboduus in the Hercynian Forest. *Boihemum* suggested that the Gallic Boi had settled there before, and thus arose the Gauls in the Hercynian Forest. The *Periegesis*, which is wrongly ascribed to Priscian, has the following passage: "Saltibus Hercyniis Germania subiacet atrox. | Haec tergo similis taurino dicitur esse, | Et pascit volucres, mirum fulgentibus alis, | Queis ducibus noctu cernuntur flexa viarum."[3] Here the forger not only got his account of the fire-birds out of Aethicus, Isidore, and Pliny, but from Pliny's reference to Hyrcania near the Taurus, which we found also correlated in the same way in Julian, came to the absurd conclusion that Germany resembled a bull's hide. It may be he thought of the "atrox bubalus" in the Hercynian Forest.

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[1] *Ger.* XXVIII.

[2] XLII.

[3] 275–278.

In a considerable number of cases it is not possible to ascertain whether the *Hercynian Forest* is the one in Germany, hence of late origin, or the generalized Hyrcanian Forest, somewhere in the East, at the head of the Tanais River. The latter is certainly the case in Dionysius of Halicarnassus, who says that Germany extends "as far as" the *Hercynian Forest.*[1] The same is true of many of the other passages given in Holder,[2] and in some of the cases the *Hercynian Forest* may very early have been located somewhere in Germany, as seems to be the case in Ptolemy, if the references are not interpolations. But the elaboration of the *Hercynian Forest* with its fabulous beasts and the Arminian episode all unquestionably belong to the VIII. century.

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[1] XIV. 1. 2.

[2] *Op. cit.*

WORD INDEX

Alb. =Albanian.— *Alt.* =Altaic.— *Annam.* =Annamese.— *Arab.* =Arabic.— *Aram.* =Aramaic.— *Armen.* =Armenian.— *Armor.* =Armoric.— *AS.* =Anglo Saxon.— *Assyr.* =Assyrian.— *Aves.* =Avestan.— *Babil.* =Babilonian.— *Bas.* =Basque.— *Behar* =Behar.— *Bel.* =Belujistan. — *Berber* =Berber.— *Bil.* =Bilin.— *Boh.* =Bohemian.— *Bret.* =Breton.— *Čag.* =Čagatay.— *Cant.* =Cantonese.— *Car.* =Carib.— *Catal.* =Catalan.— *Čech* =Čech.— *Chald.* =Chaldaic.— *Chin.* =Chinese.— *Copt.* =Coptic.— *Corn.* =Cornish.— *Dan.* =Danish.— *Djeb.* =Djebel Nefusa.— *Drav.* =Dravidian.— *Dutch* =Dutch.— *Egyp.* =Egyptian.— *Eng.* =English.— *Esth.* = Esthonian.— *Eth.* =Ethiopic.— *Fin.* =Finnish.— *Fr.* =French.— *Fuch.* =Fuchau.— *Gael.* = Gaelic.— *Gal.* =Galibi.— *Geor.* =Georgian.— *Ger.* =German.— *Gipsy* =Gipsy.— *Gondi* = Gondi.— *Goth.* =Gothic.— *Gr.* =Greek.— *Guar.* =Guarani.— *Guj.* =Gujarati.— *Heb.* =Hebrew.— *Hind.* =Hindustani.— *Iloc.* =Ilocano.— *Ital.* =Italian.— *Jap.* =Japanese.— *Juk.* = Jukagir.— *Kab.* =Kabyl.— *Kamass.* =Kamassinian.— *Kann.* =Kannada.— *Karag.* =Karagass. — *Kaz.Tat.* =Kazan Tatar.— *Kir.* =Kirgiz.— *Koib.* =Koibal.— *Kota* =Kota.— *Kott.* = Kottian.— *Kurd.* =Kurdish.— *Lad.* =Ladin.— *Lamut* =Lamut.— *Lang.* =Langobard.— *Lap.* =Lappish.— *Lat.* =Latin.— *Lett.* =Lettish.— *LGer.* =Low German.— *Lith.* =Lithuanian.— *LLat.* =Late Latin or Low Latin.— *Magy.* =Magyar.— *Mal.* =Malay.— *Malayal.* =Malayalam.— *M.Pol.* =Malayo-Polynesian.— *Manch.* =Manchu.— *Maor.* =Maori.— *Mar.* = Marathi.— *MDut.* =Middle Dutch.— *MEng.* =Middle English.— *MGr.* =Middle Greek.— *MHG.* =Middle High German.— *MLG.* =Middle Low German.— *Mong.* =Mongolian.— *Mzab* =Mzab.— *Nah.* =Nahuatl.— *Nam.* =Namur.— *OBulg.* =Old Bulgarian.— *OFr.* =Old French.— *OHG.* =Old High German.— *OIr.* =Old Irish.— *ONorse* =Old Norse.— *OPers.* =Old Persian.— *OPort.* =Old Portuguese.— *OProv.* =Old Provençal.— *OPruss.* =Old Prussian.— *OS.* =Old Saxon.— *Osm.* =Osmanli.— *OSpan.* =Old Spanish.— *Osset.* =Ossetinian.— *Palm.* = Palmyrene.— *Pehl.* =Pehlevi.— *Perm.* =Permian.— *Pers.* =Persian.— *Pied.* =Piedmont.— *Pol.* =Polish.— *Polyn.* =Polynesian.— *Port.* =Portuguese.— *Prak.* =Prakrit.— *Prov.* =Provençal.— *Pruss.* =Prussian.— *Rae.Rom.* =Raeto Romanic.— *Redam.* =Redames.— *Rum.* = Rumanian.— *Russ.* =Russian.— *Ruth.* =Ruthenian.— *Sansk.* =Sanskrit.— *Sard.* =Sardinian. — *Serb.* =Serbian.— *Sing.* =Singhalese.— *Slav.* =Slavic.— *Soy.* =Soyot.— *Span.* =Spanish.— *Sulu* =Sulu.— *Sumer.* =Sumerian.— *Syr.* =Syriac.— *Syry.* =Syryenian.— *Tag.* =Tagalog.— *Tah.* =Tahitian.— *Taino* =Taino.— *Talm.* =Talmudic.— *Tam.* =Tamil.— *Tamaz.* = Tamazirt.— *Tat.* =Tatar.— *Tel.* =Telugu.— *Tib.* =Tibetan.— *Toda* =Toda.— *Tom.* = Tomahek.— *Tuar.* =Tuareg.— *Tul.* =Tulu.— *Tung.* =Tunguz.— *Tupi* =Tupi.— *Turk.* = Turkish.— *Uig.* =Uigur.— *Vogul* =Vogul.— *Vot.* =Votyak.— *Wall.* =Walloon.— *Wars.* = Warsenis.— *Welsh* =Welsh.— *WRuss.* =White Russian.— *Yak.* =Yakut.— *Yen.* =Yenisey. — *Y.Ost.* =Yenisey Ostyak.—

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